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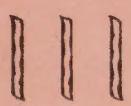
CARLILE

AND THE

SURGEONS

BY

CHARLES WORTHAM BROOK



GLASGOW:
Strickland Press, 104 George Street, C.1
1943

22500846617

Charles Brook .1943.

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DEDICATION

To My Courageous Friend

GUY A. ALDRED

A worthy disciple, biographer and champion of

RICHARD CARLILE

Libertarian and warrior against Ignorance

1790-1843

WELLCOME LIBRARY INSTITUTE

TO RICHARD CARLILE.

When honest virtue sinks beneath the arm
Of tyrant power, when terror and alarm
Stalk o'er the country with gigantic stride,
And hungry dismal want spreads far and wide;
When Liberty, long harassed and oppressed,
Prepares to leave the land she once caressed;
When patient Labour, too, may yield its toil
That fools may live, or quit its native soil;
Shall I be silent and my voice refuse,
And smother in my breast the sacred muse?
Oh, no! I own I feel her power inspire
And fill my soul with Freedom's sacred fire.
Oh! that my pen could pierce the coward's heart
Who dared confine thy limbs, Carlile! I smart—
My soul does smart—whene'er I think of thee,
Thou dear devoted son of Liberty!
But droop not thou; in Britain still are men
Will wake to Liberty, thy mighty pen
Has rent the mask away and thousands see
Corruption in its own deformity.
Then droop not thou! We yet shall sweep away
The juggling fiends who bar the light of day.

JULIAN HIBBERT.

PREFACE

My interest in Richard Carlile is recent.

I had read Carlile's biography by Mr Guy A. Aldred, and noting that the death of Carlile occurred on February 10th, 1843, I suggested to the Author that the centenary of the event should not pass by unnoticed.

Mr Aldred, in reply, informed me that to celebrate the centenary he was himself intending to compile and publish "Jail Journal"—a collection of Carlile's essays, etc., written while he was a prisoner.

I was privileged to look through the proofs of this excellent work, and Mr Aldred, perceiving that my interest in Carlile had been stimulated, presented me with a copy of W. H. Wickwar's "The Struggle for the Freedom of the Press," in which Carlile is the central figure.

While reading this book I came across a footnote—"William Lawrence was a very distinguished surgeon."

The mention of the name William Lawrence made my mind flash back twenty years, to the handsome face in a portrait by H. W. Pickersgill, R.A., included in the collection of fine paintings in the Great Hall of St Bartholomew's Hospital.

I was interested in Sir William Lawrence, for although he was born in 1783, he was still an active member of the Bart's staff when my great-uncle Charles Brook, F.R.C.S., of Lincoln, who died as recently at 1930, was house surgeon to Mr Skey.

The possible association of two such entirely different individuals as Carlile and Lawrence was one that filled me with curiosity.

But my interest was increased when only a few weeks ago I came across the following note about Lawrence in an obituary notice in *St. Bartholomew's Hospital Reports* of 1868:—

". . . in 1819 he published 'Lectures on Physiology, Zoology and the Natural History of Man.' The last was the celebrated volume Lawrence was subsequently induced to suppress; but in 1823 Carlile, without the sanction or consent of the author, indeed in spite of anything he could do to restrain him, printed and published a volume entitled 'Lectures on Comparative Anatomy, Physiology, Zoology and the Natural History of Man,' which was simply a copy of the two volumes mentioned above"

Why had Lawrence been induced to suppress his published lectures, and why had Carlile republished them?

These were questions that seemed well worth investigation, and as a result I think that my curiosity has at least been partially satisfied.

I have included a chapter dealing with Joseph Hume who, incidentally, was—as far as I can ascertain—the only member of the medical profession in the country who became a Parliamentary Party Leader.

I have also devoted a chapter to Robert Taylor, and in the preparation of this I have made extensive use of a biography of Taylor recently written by Mr Aldred.

I regret that I have not done full justice to Thomas Wakley, founder of *The Lancet*, and probably the greatest figure in British Medicine during the nineteenth century; but I have not yet been able to establish any direct collaboration between Wakley and Carlile, although both were closely associated with Francis Place, the Charing Cross tailor, "the Back Room Boy" of many Reform movements. As soon as I secure the necessary leisure, I intend to write a new but unorthodox biography of Thomas Wakley, for he, like his fellow Devonian, Carlile, has been shamefully forgotten.

My investigations are far from complete, for Carlile must have met and known a number of the progressive leaders of the medical profession. I am still curious to learn the name of the eminent physician who gave such an astonishing opinion as to the cause of "Green Sickness" in young women, and which Carlile records in his essay "What Is Love?" which is published in "Jail Journal."

I am indeed most grateful to Mr Aldred, for it is entirely due to his great encouragement that I undertook this pleasurable work.

My acknowledgments for help and assistance are numerous, but the "continuity" is my own, and I assume complete personal responsibility for any expressions of opinion contained in this work.

My old friend Mr A. H. Coughtrey, the Librarian of St Bartholomew's Medical College, has provided me with a very complete Lawrence Bibliography, and has obtained for me a fine engraving of Pickersgill's portrait, to which I have referred. The head and shoulders I have had reproduced for inclusion in this volume.

Mr Leslie T. Morton, the Librarian of St Thomas's Hospital Medical School, has collected for me much information concerning Thomas Wakley and Richard Grainger.

I am also very grateful to Mr H. Kelham of the British Museum Library, to my colleague Dr Velden, and to Mr Sidney Davis, for his searches for legal documents relating to Carlile and Lawrence.

Through an introduction from Mr Aldred, I was able to contact Mr William Watson of Kirkintilloch, near Glasgow, who kindly loaned me some of Carlile's publications; also through the generosity of Mr Watson I have obtained a copy of the Carlile edition of the Lawrence Lectures. I have selected and edited one of these lectures for this volume, but as it may not be of general interest I have included it in the addenda. It was this lecture which caused the first rupture between Abernethy and Lawrence.

Looking through the early numbers of *The Lancet* is very absorbing but terribly distracting. I owe much to my friend Roger Page, for he has prepared with great skill many valuable abstracts which saved me much necessary but detailed investigation.

In the meantime I am content to make this small contribution to the Richard Carlile centenary celebration, and I hope that as a result there will be fewer who have either never heard of Richard Carlile or who confuse him with Thomas Carlyle.

Mottingham, S.E.9, November, 1942.

INTRODUCTION

FIGHTER FOR FREEDOM IN THE FIRST DAYS OF CAPITALISM

One hundred years ago—on February 10th, 1843—Richard Carlile died in Bouverie Street, London, at the age of 52. He had little to leave but his body, which he bequeathed for dissection.

A native of Ashburton, Devon, and the son of a cobbler, he was working as a journeyman mechanic in a tinsmith's shop in Holborn Hill when he first became interested in politics and in the Reform movement, which was then led by William Cobbett and "Orator" Henry Hunt. In 1817 he left his trade to become publisher of an advanced political journal, "Sherwin's Register." This he later acquired and changed its name to "The Republican."

PRISONER OF FREEDOM

He was soon in trouble with the authorities and was imprisoned for eighteen weeks for selling Hone's "Parodies." Although faced with indictments on further charges of blasphemy, he was present at the Peterloo Massacre and his "Liberty Flag" was taken from his Fleet Street shop to Manchester and figured prominently at that great demonstration. Avoiding arrest, he escaped to London and publicised the whole affair in "Sherwin's Register," following this up with open letters to the Prince Regent and to the Home Secretary, Lord Sidmouth.

He was apprehended for seditious libel, but, through fear of adverse and hostile publicity, the Government ordered his release. But soon afterwards, at the instigation of the Society for the Suppression of Vice, which was led by William Wilberforce, alternative proceedings were taken against Carlile on the several indictments of blasphemous libel. For, despite warnings from the authorities, he had repeatedly and persistently published and sold *cheap* editions of Thomas Paine's "Age of Reason" and Elihu Palmer's "Principles of Nature."

After a long trial, in which Carlile defended himself with great ability, he was convicted, sentenced to three years' imprisonment, fined £1500, and ordered to furnish substantial sureties.

THE IRON DUKE

Carlile flatly refused to pay the fines or furnish the sureties, although he had many well-to-do and influential supporters, including Jeremy Bentham and Francis Place. The poets, Keats and Shelley, protested against the sentence; but the Duke of Wellington considered the penalties too lenient and demanded, in the House of Lords, that Carlile should be outlawed and transported for life; while the Czar of Russia forbade any mention of the trial in the newspapers of his country.

For six years, until 1825, Carlile remained in Dorchester Gaol, but from his cell he organised one of the most audacious and best-planned campaigns of passive resistance ever recorded, and, what is most important, his efforts were completely successful. No fewer than 150

of his shopmen and shopwomen in all parts of the country were prosecuted, and many, including his wife and his sister, were sentenced to long terms of imprisonment.

But volunteers were never lacking. The "Republican" and other Carlile publications appeared with unfailing regularity, and at the end of 1825 he emerged from jail triumphant, with his fines unpaid and his sureties abrogated.

WELLINGTON ROUTED

He had not only successfully defied and utterly routed the Government, Wellington's Constitutional Association, and Wilberforce's Vice Society, but he had made good use of his long incarceration. He read widely and wrote prolifically. He developed to the full his greatest and most outstanding gift, perhaps not surpassed by any Englishman before or since, of being able to focus on any problem the spotlight of plain commonsense.

To give an example at random: Carlile objected on principle to oath-making, and of sworn evidence given at trials he wrote:—

> "If the oath were valued as giving weight to the evidence, cross-examination would be a very great presumption; for it proves that the oath has not given weight to the evidence and that it cannot give it weight."

CHAMPIONS THE WORKERS.

During his stay at Dorchester his views on politics and religion underwent great changes. He turned his back on the Reformers.

"I write for the poor," he proclaimed, and he not only wrote for the poor but published for the poor and sold to the poor at prices the poor could pay. That was his real crime in the eyes of the ruling class.

His desire to serve the proletariat is well shown in his masterly and devastating exposure of the exploitation of the operatives in the Manchester cotton mills, which he wrote in 1827.

Not many to-day could better Carlile's indictment of industrial Capitalism of a century and a quarter ago, when he wrote—in 1827—of the plight of the operatives in the Manchester cotton mills: "The human beings are worked with less care than is shown to the machinery, as the latter is expensive and the former costs the masters nothing for renewal."

SLAVES IN ENGLAND

He lashed out at Wilberforce and other reformers.

> "It is astonishing that our public professors of humanity should have kept up a clamour about slaves in another part of the world and that they should be blind to this, the worst kind of slavery that was every inflicted on any portion of the human race, upon any portion of the animal world. Oh! how this religious humanity of Wilberforce and others stinks of hypocrisy. Men and women subscribe money for the prevention of cruelty to animals, but forget to include their own species, the animal man, in the common benefit."

Carlile was prophetic when he discussed the future of the cotton industry, for he expressed the opinion

"that the end of the century is very likely to see many of the huge and hell-like cotton mills emptied of human beings and the refuge of bats and owls."

SOCIAL REPUBLICAN

At that time the Parliamentary Reformers were holding out promises of the millennium, but Carlile, the Social Republican, boldly proclaimed :—

"There will never be any serious attempt made to improve the conditions of the working people but among themselves. They must begin it, carry it on, and end it."

In 1831 Carlile was sentenced to his third term of imprisonment. This time it was 32 months for sedition, for having encouraged insurgent agricultural labourers to continue their strike. He argued that as they were in a state of war, and that in war all destruction of property was lawful, therefore they were, under the circumstances, justified in destroying farm produce. On this occasion Carlile was imprisoned in the Compter in Giltspur Street, and in reply to a message of sympathy wrote :—

"It may seem strange, but whether from habit or what else, it is no less true that in the course of our great political struggle, I like a gaol, and am more happy here than I can possibly be anywhere else until the time of our political triumph."

THE "DEVIL'S CHAPLAIN."

Carlile never complained about his own privations, but to others similarly persecuted he was always ready to offer sympathy, wise counsel, and encouragement; as, for example, when he wrote from the Compter to his collaborator, Robert Taylor, "The Devil's Chaplain," who was then in Horsemonger Lane Gaol and had complained to Carlile that the gaoler had insulted him :

"It is not in the power of man to insult me. Assault is one thing, but insult is another, and there can only be insulting when there is a disposition to court it. Human nature is capable of a dignity that will not leave room for the word insult."

Carlile was a noted anti-militarist writer and publisher, and, in defiance of the Press Acts, he published an unstamped and anonymously written pamphlet characterising militarism as a monster and advocating its boycott by all decent people.

During the last decade of his life he was dogged by ill-health, probably aggravated by his seven-and-a-half years' imprisonment, but his pen was active to the end, and only a few months before his death he wrote to Sir Robert Peel announcing his intention to provoke prosecution as a protest against the imprisonment of G. J. Holyoake.

Carlile was consistently abused during his lifetime, and after his death the "Times" referred to him as "this notorious individual."

Almost a century later the Director of Talks of the B.B.C. expressed the opinion that Richard Carlile was not sufficiently eminent to justify a special centenary programme! Perhaps a more accurate reason for this decision is that the present time can scarcely be considered opportune for the average radio listener to appreciate the downright common sense of Richard Carlile.

THE SURGEON OF DORCHESTER GAOL

On October 12, 1819, Richard Carlile, handcuffed to two officers, was taken to Dorchester Gaol.

He had been found guilty after a long trial by a prejudiced jury—a mock trial, as Carlile termed it—of having published and sold Thomas Paine's "Age of Reason" and Elihu Palmer's "Principles of Nature."

For this he had been sentenced by an equally prejudiced Judge to three years' imprisonment, fined £1500, and ordered to give and furnish sureties in a total sum of £1200 to be of good behaviour for the rest of his natural life.

Carlile, although having wealthy and influential friends and sympathisers, including Jeremy Bentham, Francis Place, and Robert Owen, refused to pay the fine or be bound over, and thus he remained in Dorchester Gaol for six years.

(See Appendix of Notes on Carlisle's Imprisonment)

But he did not languish there, for as he said later, at the end of another long term of imprisonment:—"It may seem strange, but whether from habit or what else, it is no less true that in the course of our great political struggle I like a gaol and am more happy here than I can be anywhere else, until the time of our final triumph."

From his cell at Dorchester he organised what was probably the most daring and effective campaign of passive resistance ever recorded in the history of this country.

He had the active co-operation of his wife, who shared his cell for two years, his sister, and no fewer than 150 of his enthusiastic and devoted shopmen and shopwomen, very many of whom underwent long terms of imprisonment for selling and distributing his publications all over the country.

By this means he was able to maintain the publication and circulation of his own journal, "The Republican," throughout his long imprisonment.

He himself with unfailing regularity contributed to "The Republican" essays, articles, and "open letters" that were topical and lively, frequently libellous and very informative.

Carlile's persistent defiance of those in whose charge he had been placed was a constant source of anxiety and annoyance.

His opinion of the Prison Surgeon was very adequately expressed in an "open letter" published in "The Republican" of March 11, 1825.

When considering this letter it must be remembered that it was written at a period when men expressed themselves more bluntly, less politely, but perhaps more honestly, than they do to-day. It was an age of ignorance, when blood-letting, blistering, and drastic purging were the principal remedies of the medical profession.

The reason for Carlile's emphatic preference for Crude Mercury, which was at that time used as an aperient, will not be appreciated unless it is explained that Carlile had been warned by Place, whose private intelligence service was widespread and reliable, that an attempt might be made to poison him. Knowledge was heresy and

blustering ignorance was applauded and respected as evidence of medical status.

Carlile knew something of the properties of drugs in general use and of what he termed "Gallipot Latin," for as a boy he had served for twelve months as an apprentice to an Exeter Chemist.

It is therefore likely that he suspected that the calcined Mercury might have been contaminated with poison.

Of considerable historic interest is the reference to Napoleon's treatment while a prisoner at St Helena.

One of the most intriguing features in the letter is Carlile's shrewd commentary on the shortcomings of the medical profession and the inadequate training provided for medical students.

The Royal College of Surgeons, which had received its charter only a quarter of a century earlier, was under the control of a small self-appointed clique of the senior members of the surgical staffs of the six principal London hospitals—St Bartholomew's, St George's, The London, The Middlesex, and the United Hospitals of St Thomas's and Guy's.

Nepotism and jobbery were rampant. For example: Sir Astley Cooper, the leading surgeon of the day, had openly influenced the appointment to the surgical staff of Guy's and St Thomas's Hospitals of three of his nephews, a godson, and two of his apprentices. The self-elected Council of the Royal College of Surgeons had recently made regulations whereby medical students in London, before they could enter for the examinations for membership of the College, were obliged to furnish certificates that they had attended certain courses of lectures delivered by one or other of the ten self-appointed examiners.

Sir Astley Cooper, one of the ten, has been stated to have extracted 5 guineas from each of 300 students for a short series of lectures; while John Abernethy probably fared nearly as well at Bart's.

But strong opposition was being organised, and Carlile, with his accustomed vigour, used his pen to good effect in support of the Medical Reform Movement in his letter to the Surgeon to Dorchester Gaol.

TO MR CHRISTOPHER ARDEN,

Mayor of Dorchester, Surgeon to Dorchester Gaol, and "the Lord knows" what else, for the writer does not.

Dorchester Gaol, February 24, 1825.

Sir,

On the 10th of this month, you, the Surgeon, the Gaoler, and the Chaplain, of this Gaol, surprised me with a sort of pompous official visit: in which, you stated your professional opinion, that, *you thought me wrong in swallowing Crude Mercury.* I was surprised at such a visit and such a message; because, since, in October, 1823, I told you, that, *you were a disgrace to your profession*, I have not thought it becoming in me to enter into any kind of conversation with you, nor to treat you, as I would treat

a gentleman, or any man, that was an honourable, good man. You, the Surgeon, the Gaoler, and the Visiting Magistrates of Dorchester Gaol, are men whom I look at as beneath my complaisance, or even my notice: and my reasons are—*the base treatment, that I received from you all, during the first four years of my imprisonment.* This, in me, is not a temporary feeling, that will pass away: it is a part of my life. You cannot undo what you have done, I cannot, and ought not to, forget it, and if I have the power, twenty years hence, or at any future period, I will punish you and them for it.

You told me in October, 1823, that, in respect to the authorities of the Gaol, you felt yourself to be but *as a common soldier, bound to obey orders,* and when you dropped that expression, I told you, and told you correctly, that, *you were a disgrace to your profession.* I now tell you, that, *you are a disgrace to your profession.* When I explained to you, that the treatment, I was receiving, was undermining my health, you turned a deaf ear, and gave me no answer. On the 10th of this month, you could come sneakingly and smilingly to say, that you were afraid, that crude mercury would injure my health, and that, if I wanted professional assistance, you would give it to me. I answered you, and answered you properly, that *I never would be a patient of yours, if, like Napoleon Buonaparte, I were sick to death*; and you, as if instinctively, said—"*I expected you to say so.*"

Speaking of Napoleon Buonaparte; when you came to speak to me, I had just finished reading O'Meara's *Voice from St Helena*; and, I was really struck with the coincidences in his and my treatment, allowing for the difference in characters and situations. I could not help thinking, but, that, I might make up my mind for a hereditary cancer, or for some kind of hereditary death in this Gaol.

My Gaoler is a perfect Sir Hudson Lowe, and though I never saw the latter, nor his portrait, I will engage, that there is a similarity in countenance—that they are phrenologically alike. And you, as the Surgeon of the Gaol, by your own confession, are a common soldier, that is, a common killer of his species, ready to obey any orders. Comfortable situation, for an offensive State Prisoner! I will brave it! If ever any man made *death or victory* his motto, I have made it mine.

The treatment of Buonaparte was this. Restrictions were put upon his means of taking exercise, such as, it was expected, he would not bear; and when it was found, that he did not comply with them, they were made more and more offensive, he was exposed to more and more insult, until he ceased to comply. This was the object to be gained. This gained, it was given out, that he was sulky, and thus his health was gradually undermined, by want of exercise, in a bad climate, and by being exposed to every kind of annoyance and insult. My treatment has been precisely the same. It has been published in the papers of this part of the country, that I was sulky and would not take exercise; when, indeed, my object was solely to avoid insult, which could not fail of irritating any man, and, in such a situation, of exposing him to more immediate danger. But, I am younger than Buonoparte; never have been

corrupted with notions of royalty; feel that to be greatness of mind which he would have felt a degradation; and, unless directly poisoned or otherwise despatched, you will find me a tough stick. I have another advantage: a printing press, with its thousand tongues, to proclaim my wrongs weekly. Could Buonaparte have had such an instrument to enliven him, probably, he would have lived many years longer. Every solitary hour that I have is converted into a weapon against one or more of my enemies. And, if I do not have a complete victory before death, that death must be violent. I am now in a very fine trim as to health. By the joint aid of Crude Mercury and temperance, I believe, that I may pronounce myself a perfectly sound man, and as active as any man above thirty or of any age. And this, too, after expelling some very bad symptoms, which my close confinement had brought upon me.

Your visit so completely surprised me, it was so unexepected, that, until you had left the room, I could not believe, that its professed object was its sole object. I was waiting to hear something else, and thought that Crude Mercury was but an excuse to introduce some other communication or conversation. I know, that, I put a list of cures into your hand, that Crude Mercury had performed, and believe, that, I told you, on leaving the room, that yours had been a ridiculous message. I was rather unwell at the moment, feverish and agitated.

The next day, I knew you would have to make a silent look into my room, according to Act of Parliament, and I was not long resolving to try what you knew about Mercury, crude or calcined. I had prepared a series of interrogations for you. The rule hitherto has been, for the Priest to catechize children, and the Doctor his Patient; but I mean to turn the thing about, to turn the world upside down, as your old shoulder-of-mutton Rector said; to teach children to catechize Priests, and the Patient the Doctor. So, as unexpectedly to you, I called you forward to answer to a catechism.

I began in a very humble manner; but the bait, would not take. I asked you, what information you could give me, to shew me, that I was wrong in taking mercury in its crude state. Your answer was *none*. That as a professional man, you only gave your *opinion*; that you would not discuss, that, or any other question, with an unlearned man! "By learning, I suppose, you mean Gallipot Latin?" Rather confused, you said, *no*, I mean a professional man. I reminded you, that yours was *an obtruded opinion upon me*, and asked you, *what respect I ought to pay to such an obtruded opinion without a single reason to support it*? Nothing would do, you were a professional man, a dealer in mystery, and I told you, that I was at war with all dealers in mystery, such as you and our worthy Chaplain, who was by. In short, your obtruded opinion, about mercury, made you cut quite a professional figure, you allowed the spring and wires that moved you to be seen! You did say, that you thought it better adapted to be taken up by the system as a powder; but, if this proves anything, it proves, that, if any way dangerous to the human body, it must be most so, in its calcined state, when it cannot so easily pass off. You could not tell me,

whether its calcination took away any bad quality, or gave it any good one. You knew nothing on this head. All you knew was, that professional men thought proper to disguise their medicines and not to let their patients know what they had swallowed. You knew nothing of the chemical properties of mercury: you had learnt to mix it up for different purposes as a medicine, just as your wiser medical predecessors, the old women, had learnt to administer herbs, and to repeat prayers as charms. Like those old ladies, with you, it was hit or miss, every case an experiment; if the patient is killed, the fault is in the disease; if he recovers, wonderfully clever doctor! There is much less chance of being killed by an old woman for a doctress, as she will not be so rash with her experiments, preferring her herbs to minerals crude and calcined. Your whole administration of drugs, or what you call physic, or medicine, is a system of guess-work. The bases of the human body you do not study.

Some of you, country doctors, in particular, combining in yourselves every branch of the profession, such as physician, surgeon, and apothecary, are as wicked a set of impostors as the priests. You first learn to read gallipot Latin, then to mix different drugs, and to act as surgeon-barbers. This is the amount of your country apprenticeship study, if an apprenticeship is served. Next, you are off to London, to have *a walk through the hospitals*, as it is termed, and with many of you, it is a mere walk. You enter your names to attend certain courses of lectures, as students, and whether you attend or not, you find no difficulty in getting your certificate of qualification, to act as surgeon, apothecary, etc.; just as the Priest can make sure of a call by the Holy Ghost, after his name has been entered as an attendant upon a given number of divinity lectures. Thus inspired, the one hies off into the country, or back to his native neighbourhood, to cure or to kill the bodies of his neighbours, as luck may have it, and the other to cure the soul, or the diseases of a religious mind. Both cheats: both impostors: both grossly ignorant.

I grant that there are exceptions in your profession, particularly with those who study at Edinburgh and Glasgow; but the general rule, with respect to the country doctors of England, is precisely as I have stated it. Nor can I be supposed to be prejudiced against medical men as against the Priests; for I may venture to say, that the majority of the more intelligent part of them are my sincere friends and strenuous supporters. A skilful medical man is of necessity an Atheist. I attack those only whose professional pretensions rate no higher than quackery and imposture. And I am very much inclined to say, that I attack you upon that ground.

The basis of all medical practice should be a knowledge of the human body: and the basis of all knowledge of the human body is to know, that it is but one of many kinds of animals. A medical man, that commences his studies with religious notions and retains those notions throughout those studies, will never be anything superior to an empiric. Hitherto, or until of late, the medical profession has not extended its own knowledge beyond a knowledge

of recipes; and, in point of professional skill or respectability, can rank no higher than a cook who has a good set of recipes to make all her preparations pleasant to the palate. Indeed, it is a slur upon the art of cookery, to put medical recipes on an equality with it. For each individual can judge of the professional skill of the cook, whilst the meat is in the process of mastication; but it is a desperate risk to trust one's body to the doctor, whose knowledge is confined to a knowledge of recipes. It is, at least, ten to one on the side of death. If an atheist may venture to speak figuratively of Death, he can only consider a Doctor of your stamp to be his "*Charge des affairs.*" In plainer English, I will say, that you are one of Death's Prime Ministers for Dorchester Gaol, in particular, and for Dorchester and its vicinity, in part.

Since writing thus far, I perceive, that, Mr Brougham has brought a bill into the House of Commons, to put a stop to the *simoniacle* practice of purchasing qualifications to act as Doctors, in relation to two of the Scotch Colleges, that of St Andrews, and that of Aberdeen. So far, this bill is good; but, I should like, that, Mr Brougham should assure himself, that it is not necessary to make such a law for England, if his bill be not already general. He can do more good in this way; he ought to bring in another bill to prevent the priests from preaching more than they can prove: to turn the existing Church Property into my new Church of ZEROTARIAN CATHOLIC CHRISTIANS. He will then master himself in legislation upon matters of education.

You were pleased to say, that, you would not give me any information about Crude Mercury, nor discuss any subject with me, because I was *an unlearned man.* Did you learn to say this from Mr Richman? My being unlearned, was the very reason why I asked the information from your learning, and the reason why, you should, and why, you would if you could, have given me that information. But I am a bit of your sort of a learned man. My mother was a bit of a female apothecary in a country town, and, in addition to that, I was for four months among the gallipots, and got quite learned in their inscriptions: indeed, I was nearly capacitated to make up a physician's prescription, and quite so to understand it. I should like to get a little of your learning upon paper, to see if I could not handle it, as I have handled Mr Richman's learning. "Oh! that (thou) mine enemy had written a book."

The first attack that I made upon your craft was in the letter to Mrs Fry, and, of that letter, thinking it applicable, I sent you a copy. I did hear a person say, that you should pronounce it a "clever thing;" but you never said anything to me about it. Then was your time to have spoken to me about Crude Mercury, and not to have allowed me to keep "poisoning" myself for upwards of a year. In that letter, I threw down a challenge to surgeons, as to the real composition and purpose of the human body, which, unlearned as I may be, I have been deeply studying *metaphysically*, and, am now anxious for liberation to study it *physically.* In that letter, I stated, that the human body was a series of pipes or fibre,

through which, and every part of which, there was a perpetual circulation of fluids. It was necessary to know this much, to know, how Crude Mercury could operate to advantage in the body. Lately, I have read a volume, of the previous existence of which, or of anything like it, I did not know, written by a M. Golbeck, a German Physician and Metaphysician, and translated by Mr Waddington the celebrated hop-merchant and politician, in which, I find, that my conclusion as to the human body, though original to myself, was not original to the public. M. Golbeck reduces the whole animal system to *the fibre and the drop.* What I expressed as a circulating fluid, he expresses as a drop. I prefer my own expression; because, *a drop* does not apply well to *gaseous fluids*; which, indeed, were but little known when he wrote his book. Sir Everard Home has traced the process of vegetable growth, at least, to be by the fibre and the drop or fluid: and I carry the theory to animals. So that, had you been able to purchase a qualification for discussion, you would not have found me the most contemptible, the most unlearned, man, that you ever saw, even in a mirror.

Having probably taught you something about the basis of the animal body, I will now proceed to give you that information about Crude Mercury, which, you could not give to me. You brought to me an opinion without reasons: your reasons you reserved for learned men, who could not need them. I very much doubt, if that opinion was your own; for the pomposity with which it was brought, having the Chaplain and Gaoler as witnesses; and three magistrates below to assist in so weighty an affair, induces me to think, that this weighty opinion was sent down from London, and that you, with a broad back and brazen front, were made the ultimate bearer of it. The springs and wires, as I told you, were visible throughout. Were it not for the prospect of a bad name, which some or all of you will be sure to get, I am sure, that my death would be a matter of great satisfaction to you. If I die in the Gaol, all the opinions and all the professional reasonings that you can put forth will never persuade the present and future publics but that I have been murdered. Every thing connected with my treatment in the Gaol would warrant the conclusion. You would not get a prisoner in the Gaol to believe anything to the contrary, for they hear and see that everything relating to my person and treatment is mysterious, and unlike what happens to all the rest. And to tell you the truth of my own feelings upon the subject, your opinion about Crude Mercury did but excite such suspicions in me; for it appeared to me, that the pretended warning was like a preparation for a future exercise. "There, Crude Mercury has killed him: we warned him of it." These were the reasonings that flashed on my mind, the moment I was left to reflection: and I took the precaution to write the particulars of the case to a friend immediately. Right or wrong, a prisoner, and such a prisoner as myself, cannot divest himself of these feelings in a Gaol, and, particularly, after such treatment as I have received from Gaolers, near and remote. You, one and all, know, that the affair of my prosecution, and imprisonment, and persecution, will not end with

my liberation. I have thieves to punish, villains to whip, and tyrants to pull down.

Crude Mercury approaches as near to a panacea as any thing can, or as any thing will, approach. A universal panacea is as remote as perpetual motion. Though the animal frame has one general basis, that basis has a variety of characters, and that variety is increased by different habits; so that the same substance, which shall medicate the body of one man, shall poison another: or, in the old proverb, "what is one man's food is another man's poison." But so far am I from crying up Crude Mercury for the use of all people, that I had rather cry it down, and advise them so to live, so to observe the proper diet, dress, dwelling, cleanliness and exercise, as to keep the body free from disease, and to guard against the utility of Crude Mercury, or of any other medicine. A disease is a body poisoned, and a medicine for that disease must be something powerful enough to overcome that poison; thus, upon your system of medicating the body, you throw in one kind of poison to counteract the progress of another kind. The first neglect of proper treatment is, to make the body the seat of warfare between two or more poisons. But we all allow, that Crude Mercury does as much by its motive properties, as by its chemical properties. Some go so far as to deny its chemical properties; but all chemical properties are in fact nothing but motive or mechanical properties, the power to separate or combine compounds. Chemistry may be termed the mysterious or moral part of mechanical power. Crude Mercury acts in both characters, in removing and expelling obstructions and improper concretions by direct force, by the force of its superior weight, globular form, and consequent rapid motion, and by its atmospherical, its mysterious or moral, power, in dissolving unwholesome compounds. I wish to be clearly understood as using the word *moral*, at all times ,in the sense of being a finer sort of, or a concealed, physical action, a property of matter not visible to our eyes, nor audible to our ears, but comprehended by the general system of sensation. Language is as yet as imperfect as our knowledge, and there is often a difficulty in conveying ideas, particularly, if they possess any thing of originality, as, in that case, they necessarily precede language. General terms are but ill suited to express particular ideas; and the chief cause of human disagreement is, that words are meant in one sense and taken in another.

No simple medicine of any kind ever performed so many surprising cures as have been performed by Crude Mercury. Not only at this time, but at all times and places where it has been fairly tried. It has been twice cried down by the medical men of this country, and that from sheer baseness; for, they have since adopted it as the basis of almost every prescription, in its concealed state. They cry it up as a poison, and yet rest on it for almost every cure! The truth is, they have been and are now alarmed for their "Diana," for their "Glorious Constitution," and do not wish the labouring man to make his own shrines, or what would be better to do without shrines. Pretty affair, cry they, that we should study Gallipot Latin, walk through the hospitals, pay a smart price for a certificate of

qualification (to kill), and then have no one to apply to us (to be killed).

In saying that Crude Mercury is not wholly a panacea, or not a panacea to all persons, I intimate, upon the principle, of the human body being a compound of fibre and fluid, that it will not restore a very rotten state of fibre; though, in an incipient state of fibre decay, I incline to think that it would check its progress. Another consideration is, that neither this nor any other medicine will check the progress of decay brought on by excesses of any kind whilst those excesses are continued. Temperance has ever beeen extolled as the best physician, and, in my judgment, will never lose its superiority. So that, if the drunkard or the glutton expect a solid relief from Crude Mercury, or from any other medicine, disappointment will be added to their other miseries. There are other excesses, besides drunkenness and gluttony, to which the same rule will apply. In addition to original variance in tone of the body, there is another great variety brought on by excesses of all sorts.

As an explanation, how Crude Mercury acts on the body, we can refer to an experiment lately made on a piece of beef. Putting a piece of fresh beef under an air pump and exhausting the receiver in the most effectual manner, it was found, that the beef had lost three-fourths of its weight; that the fibre, as to the fluid of the beef, was but as one in four. The great object in preserving health is to have the fibre strong and the fluids pure: and the action of Crude Mercury in the body cleanses both fibre and fluid, by mingling with the fluid and rubbing against the fibre. The unlearned reader, or perhaps, the unlearned doctor, may be informed, that the animal body is a mass of fibre of different appearances, and that each fibre is a channel through which a fluid flows or ought to flow. Where there is obstruction, there is disease.

But it is not only upon the smaller vessels that Crude Mercury acts, it acts upon all, large and small, of which the following may be taken as a recent case, the statement of which as transmitted to me, I put into your hands in this room, and which you read,, and found that you had read enough, to make your message to me appear ridiculous.

Hannah Hopwood of Torrington near Stockport, four years before the last plum season, swallowed some plum stones. Her body began to swell, and she fancied herself in a state of pregnancy and provided for it; but before the expected time of delivery the swelling abated. Her pain night and day, was severe and incessant, and the Doctors of the neighbourhood could give her no relief. In this state of misery she remained above four years. On reading, or hearing of my publication of Belloste's Treatise on Crude Mercury, she began to take it, as I had recommended, a small quantity about the size of a pill daily. She does not state how long she waited for an effect, but that the effect was a discharge of three large solid substances, each full five inches in circumference. In breaking one of these substances, the nucleus, on which the concretion had formed was found to be a plum-stone. The statement is attested by

a Thomas Warren, who wrote it for her and measured two of the stones or concretions.

The annals of medicine do not display a more singular case than this. The statement concludes with a hope, that she shall now be well, and, that she is in a fair way to recovery.

The same writer reports the case of a Thomas Braddon, a Blacksmith, of Gee Cross, near Stockport, who for near two years, had a bad leg, in which the medical men could not assist him. Taking a small quantity of Crude Mercury daily, for a fortnight, removed all pain, and, in a month, he was as well as ever. He took but an ounce in a week. Here is a case of cure for a couple of shillings, for which, if a medical man had succeeded, he would have made a bill of pounds. The daughter of Thomas Warren received a similar benefit for a somewhat similar case. He also reports a case, in which a Druggist has cured himself of Jaundice by the Crude Mercury: and that many have removed pains in the stomach. Indeed, I am further informed, that I have set the whole neighbourhood of Manchester a taking of Quicksilver, and that the Druggists have from twenty to thirty applications daily. I have already sent down, as a whole, above 300 of the Treatise on Mercury to that town, and the demand so far has gone on increasing. The last order was doubled from 25 to 50. There is no quackery in this affair. I neither sell Mercury nor take fees. Upon this subject, and upon that other important affair, as to the prevention of conceptions, I am besieged with letters of enquiry, and must make a public statement to appease it. One thing I wish to be observed, that neither of the schemes is of my own invention, and if I assist in the promulgation of the means of preventing conception, which, in many instances, must be productive of great good, and save much misery, I have the satisfaction to reflect, that I can also announce Crude Mercury as an almost certain means of removing barrenness. So that they who wish to have children may have them: and they who have enough may stop the increase. I cannot feed mankind without food, as Jesus Christ is fabled to have done, nor perform cures by the touch or the word of mouth; but, I doubt, if all the miracle workers put together ever knew how to remove barrenness and to stay conceptions, without the slightest injury to the body—indeed, accompanied in both instances with increased health. It may be useful to teach the Mahometans that Mahomet was not the last prophet.

One thing, Crude Mercury is certainly efficacious in, and that is, in the destruction of worms, in children or adults: and where it is a question whether the disease be vermicular, it also forms the safest medicine to experiment with. I see, that a Manchester Doctor has been recommending powdered glass for worms, I can believe, that so indigestible a thing as powdered glass will kill worms; but, I should certainly fear the consequences of swallowing any quantity of such a thing as powdered glass, which certainly, has no one property to move itself through the body, as Crude Mercury has.

The following letter will exhibit the effect of Crude Mercury on worms, and show how eager the professional men of London are to cry it down.

A CHIP IN PORRIDGE.

TO RICHARD CARLILE, DORCHESTER GAOL.

London, February 14, 1825.

Sir,—I am happy to find, that a knowledge of the virtues of Crude Mercury is making a rapid stride, and that converts are daily making. Still, there are many who are fearful, that it has poisonous qualities; therefore, they must ask the opinion of the Chemist, or Apothecary, many of whom are not so honest as the Chemist of Manchester, who took an ounce to oblige his customer. Finding it making a progress, nearly one and all of the profession turn it off by coolly saying it is like a 'Chip in Porridge,' it will do neither good nor harm.

Now, Sir, as I have taken about nine ounces, according to your directions, a pill a day, regularly, I deny, that it is like a "Chip in Porridge." I began to take it last August, not for any particular complaint, having none; but to try its virtues and to brace up for a winter in London. I always found, after taking it about seven or eight mornings, that it caused a looseness of the bowels and had a smell similar to the effect of taking sulphur and milk. Then I desisted for two or three days, to proceed again. Since November I have taken none, and from that time, I can say, I never enjoyed a better and more uninterrupted state of health. I used to be sorely troubled with most violent colds in the head and ocular discharges for two or three days together every winter; but this winter has been a very wet one, and I have been wet footed, and not one of these colds in head have I had. I have not had such a blessed winter for many years. Again, Sir, I have a friend, to whom I lent Belloste's treatise, with my recommendation to take Crude Mercury, he being sorely troubled with those little worms called ascarides, which causes a troublesome itching round the anus. My friend has persevered in taking 1½ lb. according to your directions, and has brought away an innumerable quantity of worms, the itching quite gone. In health, he appears quite a different man. He says that he find himself thinner, but more braced, and has now a colour in his face, and an appetite like a hawk.

These are facts, Sir, from my own experience and observations, therefore, how can Crude Mercury be like a "Chip in Porridge?" I wish mankind would have more faith in reason, and try for themselves; for Belloste has reasoned most justly upon its qualities, by giving us its physical and mechanical properties. They who doubt it, want understanding, and the faculty knowing its virtues, and the influence reason is every day making, wish to retard it. The order of the day is, to cry it down, by artfully saying it is like a "Chip in Porridge," it will do neither good nor harm.

Yours respectfully,

R. I. BREWER.

211, Regent Street, Oxford Street.

I will now say a few words to you, as to the use of Crude Mercury as a medicine in this country, as a matter of history. It is by no means a novelty in this country, nor in any part of Europe. Indeed, in point of antiquity, as a medicine, it seems to me to vie with any other Medicine, now used; and it is reasonable to believe, that the medicinal effects of a simple fluid metal of that kind would have soon been seen among the most ignorant of mankind. I think, that, we may safely rank it as the oldest medicine now in use. Belloste and Dr. Dover between them have published authorities for its use as a medicine in various parts of the globe, and have supported these authorities by the names of nearly all the old physicians of note, who wrote before the medical science became converted into a mysterious craft. But Belloste and Dr. Dover have been the two chief defenders and encouragers of it as a medicine. The former administered it in small quantities, such as a couple of drams in a day; the latter in larger quantities, seldom less than an ounce and often two ounces in a day, or at one dose. I approve of the smaller quantity, and for this reason, that swallowing an ounce or two ounces at a time is more likely to cause it, from its weight, to keep in a body, and to pass quickly through the body as swallowed. By my own experience, I can say, that never but once did it pass through my body as I swallowed it, and that when I swallowed about half an ounce at one time. In all other cases when taken in a quantity of two drachms daily, or about the ordinary size of a pill, it has been taken up with the chyle, and has gone gradually through every part of the system, unfelt other than as a stimulant, which I always feel in a balsamic glow even at my finger ends. I am, therefore, inclined to think, that two drachms at a time will do more good, more execution in the body, than two ounces at a time.

I could make extracts from Dr. Dover's book, which would put you to blush, for the silly opinion, the professional opinion without reasons, reasons being reserved for learned men, which you gave to me about Crude Mercury; but I will go to Dr. Turner's book, who wrote specifically against Dr. Dover, and professionally against Crude Mercury. This Dr. Turner was a celebrated physician, of Devonshire Square in the city of London, about a century ago. When Dr. Dover had set nearly all the people of the country taking Quicksilver, Dr. T. put forth an advertisement in the Newspapers to invite information as to its effects. He affected impartiality; but his partiality is visible. He was alarmed for his profession. By way of prelude, I will observe, that though he wrote against every man's being his own doctor, and held out that there were dangers attending the use of Quicksilver, he confesses, that the Quicksilver concealed in a pill was his favourite medicine. He thus writes as to its history in this country.

"In King Charles the Second's reign I very well remember, though it is above fifty years past, a Physician knighted by that Prince, whose name I can sometimes recollect, though not at this instant, encouraged it much, who lived retired from business some-

where about Edmonton; and where the villagers all round coming to consult him, especially on their Children's Diseases, he advised them a thimble full of Quicksilver to be given them every morning for a month; and when careful to observe their needings, they would oftentimes recover the same, which being washed, served for the next dose. Thus they went on, and in worm disorders found wonderful effects. At length, by some children dying convulsed that had taken it, in which the same possibly had no share at all, the esteem thereof began to slacken. Some months after this a rumour was spread that a Farmer's child, being swelled monstrously (*no doubt at such a time great addition was made by the relators of the story*) about the mouth and throat, was quickly after strangled or choked by the same. I suppose a Ptyalism hastily coming on might be the occasion. Upon which alarm the Quicksilver was thrown out of doors at once and deemed no better than a poison.

"Whether or no the same practice was then carried on in London, as the well meaning author of the late treatise on Mercury seems to intimate, I know not. My father's residence being quickly after at Tottenham, gave me the opportunity of his intelligence, which I have hinted only to satisfy you that this method is but an old practice revived, and very probably may, from some accident not yet brought to light, be again discarded."

Here, it is clear, that the Doctor hoped it might be discarded One proof of the wickedness of your craft upon this subject is, that you will use it and recommend it freely in a disguised state. There is a black powder called Ethiop's Mineral, which I have often taken when young: this powder is prescribed freely to children and to adults, as excellent for eruptions on the skin, and for all kinds of scorbutic disorder; yet, this black powder is nothing more than quicksilver concealed, or rubbed up with an equal quantity of sulphur, a mixture, as proved both by Belloste and Dr. Dover, to be the most improper imaginable. Dr. Turner acknowledges that two drachms of Quicksilver made up into his pill have sometimes done more service than pounds of Ethiop's Mineral. And he acknowledges, that this pill is the best glandular de-obstruent that the profession was then master of: to which, I may add truly, than the profession is master of now, or a century later: notwithstanding your advice to be to prefer modern medical books to those a century old.

Dr Turner tells us candidly how he makes his pill, in the following words. "This Pill, told you, I prepare with two drams of crude mercury ground with a half a dram of *Terebinth*, till it is lost, then adding half a dram of *Pil. Coch. Min.* of which I usually make a dozen pills each containing fifteen grains. In other cases, where I aim more at purging, as in obstructions of the glands, in cold, phlegmatic, congested tumours, or the like, I direct three drams of Quicksilver to be ground with a dram and half of Diagredium in a marble mortar, and after to be reduced to a consistence with the *Syr. de Spina*, adding two or three drops of *Ol Macis*, as a corrector of the Diagredium; or which might do as well, to make up with the *Balsam Peru;* of this I give from a scruple to half a dram,

once or twice a day, *secundum vires, aetates ac modus operationis;* for a shorter or a longer continuance, as I find occasion. And if this is not Belloste's individual pill, it is absolutely, to all intents and purposes, equivalent."

He also mentions a Strasbourg Pill, which passed under the name of Belloste's; but of which he doubted the correctness. This Pill had Jalap, Sulphur, and several other things in addition to what has been mentioned as Dr. Turner's Pill. But the fact is, that the Crude Mercury is the basis, the medical part of the pill, and the other articles only used for concealment. It may be concealed in a pill by rubbing it up with anything of which you can make a paste fit for pills; but still, after every reflection that I can give the subject, I prefer the Mercury in its crude and simple state, and if further purgatives are necessary, to take them separate as such.

I could go on to make interesting extracts to fill a No. of my weekly publication; but as I have made a much longer letter than I first intended; I will have done.

My unlearned curiosity has been lately excited to know, if you, in your capacity of Mayor for Dorchester, act as Coroner, as well surgeon, for Dorchester Gaol; because, it seems anomalous to me, that after you have sent a patient to heaven, you should empanel a jury and preside to report how it has been done. Always by the visitation of God and not of the Surgeon, as a matter of course! However, I do not assert anything; because I do not know, not having put the question to any one, but I do know, that all these matters are done very quietly and snugly, and it may not be amiss for Mr Peel to put the question. The Gaoler told me, on a former inquest, in which I interfered, that he would not answer to my questions. I am not enough of the blasphemer to make God the common assassin of the species. I had rather give that character to the Doctor than to the Doctor's God. A poor fellow died over my head, the other day, when, I verily think, that, if I had been his doctor, I could have saved him with sixpenny worth of Quicksilver. I allude to the man who died of the small pox or the doctor, which, I cannot determine, as I was not on the inquest. I never had the small pox, and were it not for the Quicksilver, I should be very uneasy, since the Gaol has been so long and deeply infected with them, and since I have so little faith in the learning or the mystery of the Gaol Doctor.

It is not likely, that I shall address another printed letter to you, so you must make the most of this. The Mayor of Dorchester, of a corporation of nine or ten, that chuse one another into office upon the principles of, *you shall have that and I will have this*, is not a very dignified magistrate in my view of things. However, your worship can resent my want of veneration and constitutional respect, by amusing yourself, twice a week, in looking at me as a prisoner. We will not quarrel, since we can punish each other so quietly, and you may be assured, that I shall never place you in the unpleasant predicament of being my doctor. Our acquaintance must hereafter continue precisely on the footing on which it was placed last year, unless, you learn enough to confound an unlearned

man in discussion upon any one subject. A learned man never fears discussion with an unlearned, nor with a learned, man; whenever you hear a man say, that he will not discuss a subject with another, you may be sure, that the first fears his ignorance rather than any abatement of his professional consequence. I am free to discuss, with a child, any thing that relates to my profession, and feel the greatest of pleasure, to find, that I can increase the knowledge of any human being of any age or of either sex.

To you, the surgical soldier of Dorchester Gaol, by your own confession, as ready to kill as to cure, as orders may run, to the Gaoler, as your fit companion, *a mouton;* and to the Visiting Magistrates, who have conspired to make my imprisonment as painful and as unwholesome as possible; be all the punishment that you merit, with that amendment in character, and deep regret for the past, which you so much need, prays, not to your God,

RICHARD CARLILE.

In November, 1825, within six months of the publication of the letter, Carlile was liberated from Gaol.

His unpaid fines were remitted and he was unconditionally released from his recognisances.

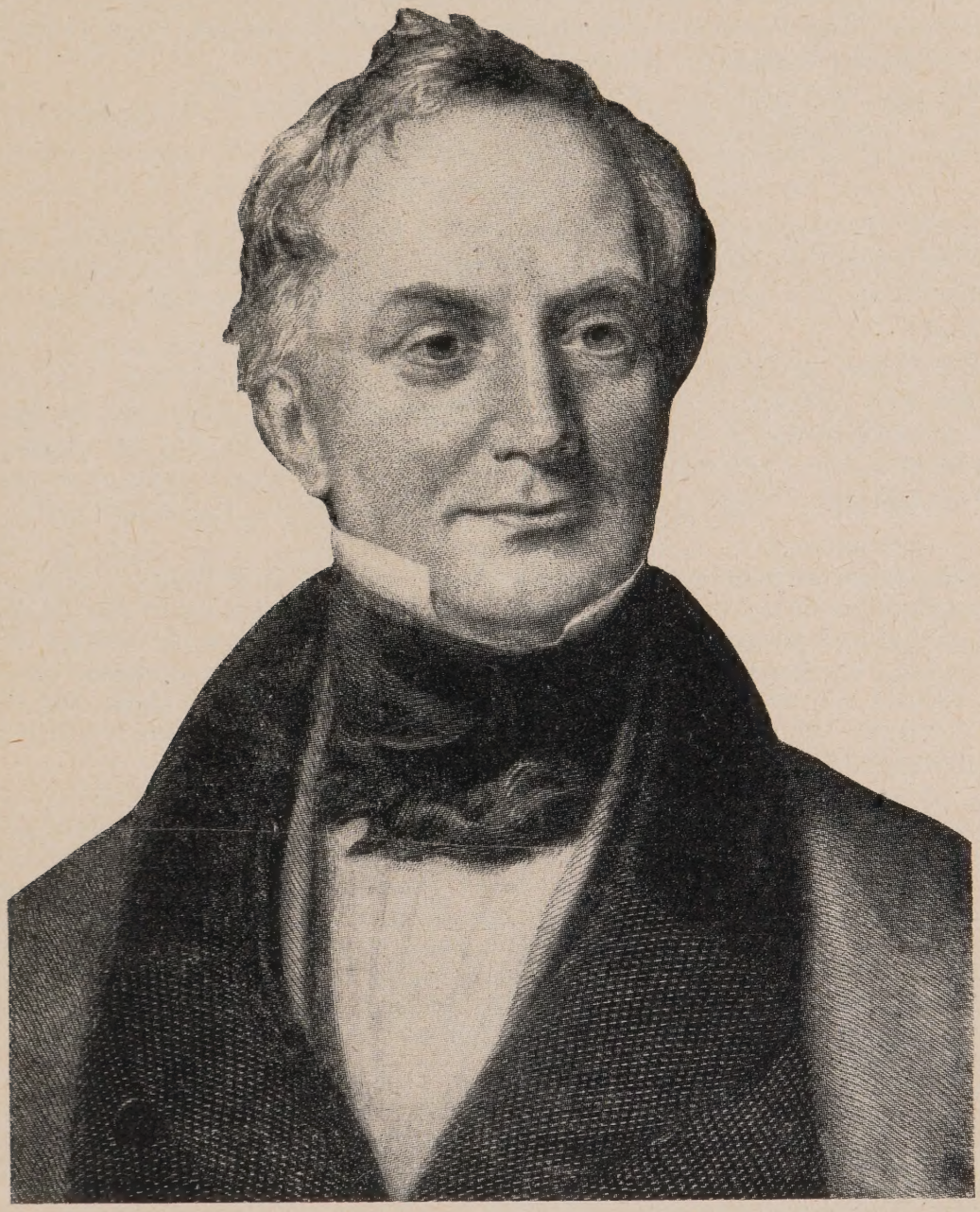
The Fleet Street publisher, who less than three years prior to his conviction had been working as a tinker in Holborn Hill, had completely triumphed over adversaries of great might and influence.

Carlile had challenged and completely routed the Constitutional Association, whose leader was the Duke of Wellington, who had demanded in the House of Lords that Carlile should be outlawed and sentenced to transportation for life.

Carlile and his shopmen and shopwomen had discomfited William Wilberforce and his Society for the Suppression of Vice.

The political reputations of both Wellington and Wilberforce were shaken beyond recovery.

Carlile had, by his courage and determination, in the words of Professor Trevelyan, "Suffered and achieved more for the liberty of the Press than any other Englishman."



Sir WILLIAM LAWRENCE

THE SURGEON WHO RECANTED

In 1815, at the age of 32, William Lawrence, F.R.S., assistant surgeon to St Bartholomew's Hospital and surgeon to the Royal Hospitals of Bridewell and Bethlem, was elected Profesor of Anatomy and Surgery at the Royal College of Surgeons.

He gave his first course of lectures at the College "On the introduction to Comparative Anatomy and Physiology."

See Appendix (b) Lawrence's Lectures

John Abernethy, F.R.S., Surgeon to St Bartholomew's Hospital, took strong exception to the views expressed in the lectures by his former apprentice, and publicly rebuked him in the Lecture Theatre of the College.

Lawrence devoted the greater part of his first lecture "On the Physiology, Zoology, and Natural History of Man," delivered in 1817, to administering a sharp but dignified rejoinder to his old master. He also made a stirring appeal for co-operation between men of science of all nations. This lecture is worth summarising. Lawrence said :—

> Gentlemen,—I cannot presume to address you again in the character of Professor to this College, without first publicly clearing myself from a charge publicly made in this theatre—the charge of having perverted the honourable office, intrusted to me by this court, to the very unworthy design of propagating opinions detrimental to society, and of endeavouring to enforce them for the purpose of loosening those restraints on which the welfare of mankind depends.
>
> I feel obliged to call your attention to this subject; not by the probability of the accusation, and still less by the arguments adduced in support of it—but because the character of the accuser may with some, supply the deficiency of proof; because the silence of contempt, which the illiberality and weakness of the charge would so well justify, might be construed by others into an admission of guilt; and, if I could appear before you under the possibility of such an admission, you might reasonably suppose me indifferent to your approbation or blame and therefore unworthy of the office which I now hold.
>
> . . . . , Without this freedom of inquiry and speech the duty of your professors would be irksome and humiliating; they would be dishonoured in their own eyes and in the estimation of the public. These privileges, gentlemen, shall never be surrendered by me; I will not be set down or cried down by any person, in any place or under any pretext. However flattering to my vanity it may be to wear this gown, if it involves any sacrifice of independence, the smallest dereliction of the right to examine freely the subject on which I address you, and to express fearlessly the result of my examination, I would strip it off instantly.
>
> I willingly concede to every man what I claim for myself; the freest range of thought and expression; and am perfectly indifferent whether the sentiments of others on speculative subjects coincide or differ from my own. To fair argument and free discussion I shall never object, even if they should completely destroy my own

opinions; for my object is truth, not victory. If vanquished in fair discussion I should have yielded quietly. . . ."

Lawrence then went on to give a summary of the charge made against him by Abernethy (and published in Abernethy's Physiological Lectures before the Royal College of Surgeons). The charge, which does not now sound either very deadly or scurrilous, was that Lawrence was one of a "party of modern sceptics, co-operating in the diffusion of these noxious opinions with a no less terrible band of French physiologists, for the purpose of demoralising mankind." After recapitulating the charge Lawrence, saying he presumed he was accused under all the heads of the accusation, roundly declared:—

> I plead not guilty; and enter on my defence with a confident reliance on the candour and impartiality of the tribunal before whom the case is brought.

He then enters on his defence proper and says that he *is* a sceptic on the question of the electro-chemical doctrine of life and that he has never seen "even the shadow of a proof that the contraction of a muscle depended on electrical principles." But he is not, he says, a sceptic, in the theological meaning of the word and does not cast doubts on the doctrine of the "immortality of the soul."

After spending some time on the historical and philosophical aspects of the question, Lawrence asks: "Is the cause of truth to be promoted by affixing injurious and party names to those who differ from us in these points of nice and curious speculation?" and then makes this rather witty observation:

> The practice of calling names in argument has been chiefly resorted to by the fair sex and in religious discussions; in both cases apparently from a common cause—the weakness of the other means of attack and defence.

Lawrence concludes with this magnificent peroration:—

> I take the opportunity of protesting in the strongest terms against the attempt to stifle impartial enquiry by an outcry of pernicious tendency; and against perverting science and literature to the antisocial purpose of inflaming and prolonging national prejudice and animosity. Letters have been called the tongue of the world; and science may be regarded in the same light. They supply common objects of interest, into which the selfish unsocial feelings are not called into action, and thus they promote new friendships among nations. Through them distant people become capable of conversing; and losing by degrees the awkwardness of strangers, and the moroseness of suspicion, they learn to know and understand each other. Science, the partisan of no country, but the beneficent patroness of all, has liberally opened a temple where all may meet. She never enquires about the country or sect of those who seek admission; she never allots a higher or a lower place from exaggerated national claims, or unfounded national antipathies. Her influence on the mind, like that of the sun on the chilled earth, has long been preparing it for higher cultivation, and further improvement. The philosopher of one country should not see an enemy in the philosopher of another; he should take his seat in the

temple of Science, and ask not who sits beside him. The savage notion of a natural enemy should be banished from this sanctuary, where all, from whatever quarter, should be regarded as of one great family; and being engaged in pursuits calculated to increase the general sum of happiness, should never exercise intolerance towards each other, nor assume that right of arraigning the motives and designs of others, which belongs only to the Being who can penetrate the recesses of the human heart; an assumption which is so well reprobated by our great poet:—

> Let not this weak unknowing hand
> Presume thy bolts to throw;
> And deal damnation round the land
> On each I judge thy foe.

In a later lecture, Lawrence attacked William Wilberforce's Vice Society with unusual warmth:—"To the disgrace of London, even in this pious age of Societies for Suppressing Vice and distributing Bibles, a philosophic foreigner has found in her streets a proof of the effects of too early venereal excitement in stimulating the breasts."

His lectures covered a wide field, and nearly a century later they were said to be the best discourses on Anthropology up to that time.

Lawrence indulged in some very outspoken "higher criticism." of the Old Testament. He declared that the stories of the creation and of Noah's ark were quite inconsistent with proved scientific facts..

The sequel to the publication of the lectures in 1819 by Callow, the leading publisher of medical books, can perhaps be best told by Richard Carlile.

In his famous "Address to Men of Science," published in 1821, and written while he and his wife shared the same cell in Dorchester Gaol, Carlile said:—

> In support of my assertion, that Men of Science have hitherto crouched too much to the established impostures of the day, I have merely to remark, that I am not aware of any one instance in which any Chemist of this country has made a public attack upon them, or called them in question in any public manner. Another proof of my assertion may be found in the Medical and Surgical professions. From the best information, I have learnt, that with a very few exceptions, the whole body of those gentlemen in the Metropolis, have discarded from their minds all the superstitious dogmas which Priestcraft hath invented, and that they have adopted those principles which have a visible foundation in Nature, and beyond what is visible and comprehensible, their credence does not extend. Yet, when that spirited young man, Mr Lawrence, having obtained a professor's gown in the College of Surgeons, shewed a disposition in his public lectures to discountenance and attack those established impostures and superstitions of Priestcraft, the whole profession displayed that same cowardly and dastardly conduct, which hath stamped with infamy the present generation of Neapolitans, and suffered the professor's gown to be stripped from this ornament of his profession and his country, and every employment to be taken from him, without even a public remonstrance, or scarcely an audible murmur!

Carlile deals further with the matter at the end of his address :—

SECOND POSTSCRIPT.

Dorchester Gaol, July, 1822.

The pressure of different circumstances have kept this pamphlet in the Printing Office ever since January, whilst the demand for it has still gone on increasing. I have noticed the case of Mr Lawrence on p. 17, and I think it will not be amiss to support that statement of the case by what has since happened in that matter : for which purpose I copy a letter of Mr Lawrence's, and some other matter, from the Monthly Magazine for July, 1822, prefacing it with some observations I made on the same subject, in No. 8, Vol. VI. of "The Republican." It may not be amiss first to state that a fresh discussion has been raised on the publication of his Lectures, in consequence of their having been pirated by one Smith, a bookseller in the Strand; to restrain which piracy, Mr Lawrence applied to the Court of Chancery for an injunction, which the Lord Chancellor very religiously refused, because the Lectures discredited his religion!

FROM THE REPUBLICAN.

"I have received for the first time, this last week, a copy of the letter addressed by Mr Lawrence, the Surgeon, and author of Lectures on Physiology, &c., to Sir Richard Carr Glynn, as extracted from the Monthly Magazine for July, and set out in opposite columns with the celebrated abjuration of Galileo. An extract of this letter alone had been previously sent to me, copied into the Sherborne Mercury, which was particularly pointed out to my attention by being interlineated and surrounded with a profusion of red-ink. Sorry I am to think that Mr Lawrence has been placed in so painful a situation, and which I view as a strictly parallel case to that of Galileo, I am less disposed to censure his conduct than the conduct of his fellows in the same profession for not coming manfully forward to support him in the trying situation in which he was placed in the year 1819. Let those who stood silently by and saw him stripped of all that could make life desirable to him take shame to themselves, and not now murmur about this sorry, pitiful, and unmeaning retraction. I view the matter on the part of Mr Lawrence in the following light. The cowardice of the body of Surgeons in the Metropolis has suffered the spirit of bigotry and idolatrous ignorance to pervade their profession, and to dictate where they shall cease to improve it; they have, with the exception of Mr Lawrence, basely succumbed to the priestly juggle imposed upon them, and he finds it impossible to pursue the profession, on which he depends, without throwing a tub to and deceiving this Leviathan of Idolatry that menaces him. I am no more disposed to censure Mr Lawrence than I am disposed to censure Galileo, particularly as the former never stepped out of the line of his profession to mingle with any public matters in politics or Idolatry. It would have been criminal in Galileo to have suffered himself to be sacrificed to the rage and bigotry of the Christian Inquisitors, and in the present day the conduct of the body of Surgeons in not supporting Mr Lawrence can be alone viewed as criminal in this matter."

CARLILE AND THE SURGEONS

FROM THE MONTHLY MAGAZINE.

"When in our last we signalized the success of Mr Lawrence. we had no suspicion that this worthy gentleman had been seduced to publish the following extraordinary paper, a few days before the election. In now giving it place as a document worthy of being preserved, and which in after ages will mark the year 1822, and characterize the age of George the Fourth, we have judged it proper to annex, in *parallel* columns, the never-to-be-forgotten abjuration of Galileo. Every reader of the two papers will, by his own comments, relieve us from the responsibility of making such as the circumstances deserve :—

MR LAWRENCE'S RETRACTATION.

Sir R. C. Glynn, bart.
President of Bridewell & Bethlem, &c.
College of Physicians, April 16.

Dear Sir,

The renewed publication by others, over whom I have no control, of the work which I suppressed three years ago, induces me to offer a few observations on the subject, and to present them, through you, to the Governors of Bridewell and Bethlem. The motives and circumstances of the suppression in question are detailed in a letter to Mr Harrison, through whose medium it was communicated to the Governors of the two Hospitals; and this letter, I conclude, is entered on the minutes of their proceedings.

Further experience and reflection have only tended to convince me more strongly that the publication of certain passages in these writings was *highly improper;* to increase my *regret* at having sent them forth to the world; to make me satisfied with the measure of withdrawing them from public circulation; and consequently firmly resolved, not only never to reprint them, but also *never to publish any thing more on similar subjects.*

Fully impressed with these sentiments, I hoped and concluded that my Lectures would in future

THE ABJURATION OF GALILEO.

I, Galileo Galilei, Florentine at the age of seventy, appearing personally in judgement, and being on my knees in the presence of you, most eminent and most reverend Lords Cardinals of the Universal Christian Commonwealth, Inquisitors General against heretical depravity, having before my eyes the Holy Gospels, on which I now lay my hands, swear that I have always believed, and now believe, and, God helping, that I shall for the future always believe whatever the Holy Catholic and Apostolic Roman Church holds, preaches, and teaches. But because this Holy Office had enjoined me by precept, entirely to relinquish the false dogma which maintains that the sun is the centre of the world and immovable, and that the earth is not the centre, and moves; not to hold, defend, or teach by any means, or by writing, the aforesaid false doctrine; and after it had been notified to me, that the aforesaid doctrine is repugnant to the Holy Scripture, I have written and printed a book, in which I treat of the same doctrine already condemned, and adduce reasons, with great efficacy, in favour of it, not offering any solution of them; therefore I have been adjudged and vehemently suspected of heresy,

be regarded only as professional writings, and be referred to merely by medical readers. The copies which have gone out of my possession, from the time when the sale was discontinued to the late decision of the Lord Chancellor, which has enabled all who may choose to print and publish my Lectures, have therefore been granted only as matter of favour in individual instances to professional men, particularly foreigners, or to scientific and literary characters. My expectations have been disappointed by the piratical act of a bookseller in the Strand, named Smith. When his reprint of my Lectures was announced, I adopted the only measure which could enable me to continue the suppression of the work, namely, an application to the Court of Chancery for an injunction against this person, being encouraged by the decided favourable opinions of the two eminent Counsel before whom the case was laid. The course of argument adopted by these gentlemen, in the proceedings which ensued, was that which they deemed best calculated to obtain my object—the permanent suppression of the book. It is not to be regarded as a renewed statement, or defence, on my part, of opinions which I had already withdrawn from the public, and the continued suppression of which, in conformity to my previous arrangement, was my only motive for incurring the trouble and expense of a Chancery suit.

As to the charge of *irreligion*, again hinted at in the Court of Chancery, I beg to repeat what I have already expressed in my letter before alluded to—that I am fully impressed with the importance of religion and morals—namely, that I maintained and believed that the sun is the centre of the world, and immovable, and that the earth is not the centre, and moves.

Therefore, being willing to take out of the minds of your eminences, and of every Catholic Christian, this vehement suspicion of right conceived against me, I with sincere heart, and faith unfeigned, abjure, execrate, and detest, the above-said errors and heresies, and generally every other error and sect contrary to the above-said Holy Church; and I swear that I will never any more hereafter say or assert, by speech or writing, any thing through which the like suspicion may be had of me; but, if I shall know any one heretical, or suspected of heresy, I will denounce him to this Holy Office, or to the Inquisitor, and Ordinary of the place in which I shall be. I moreover swear and promise, that I will fulfil and observe entirely all the penitences which have been imposed upon me, or which shall be imposed by this Holy Office. But if it shall happen that I shall go contrary (which God avert) to any of my words, promises, protestations, and oaths, I subject myself to all the penalties and punishments which, by the holy Canons, and other Constitutions, general and particular, have been enacted and promulgated against such delinquents So help me God, and His holy Gospels, on which I now lay my hands.

I, the aforesaid Galileo Galilei, have abjured, sworn, promised, and have bound myself as above, and in the fidelity of those with my own hands, and have subscribed to this present writing of my abjuration, which I have

ity to the welfare of mankind—that *I am most sensible of the distinguishing excellencies of that pure religion which is unfolded in the New Testament*; and most earnestly desirous to see its pure spirit universally diffused and acted on.

WM. LAWRENCE.

recited word by word. At Rome, in the Convent of Minerva, this 22d. of June, of the year 1633.

I, Galileo Galilei, have abjured as above, with my own hand.

"Since the preceding extracts were written and printed, we have received the following letter from the gentleman who originated the discussions relative to Mr Lawrence, accompanied by a statement, to both of which we consider it our duty to give place. Our readers, and the public at large, feel a lively interest on the question, and, having more than once advocated the cause of Mr L. *as apparently connected with the right of free enquiry*, it seems proper to give place to the statement of the opposite party.

"*Highbury Park, June* 21, 1822.

"Sir,

"You have been imposed upon in the information that has led to your animadversions upon the recent conduct of certain governors of the Royal Hospitals of Bridewell and Bethlem, towards Mr Lawrence, the surgeon. As the individual upon whom the onus of this affair has now fallen, I claim your attention to the enclosed statement, and appeal to your principles of justice to make the '*amende honorable*' as to the imputation of 'a vulgar spirit of bigotry,' &c.

"Your very obedient servant,

"B. BURGESS.

"The appointment of surgeon to these Hospitals is no '*honorary*.' A handsome emolument is affixed to the appointment."

Statement.

"The surgeon of the Royal Hospitals of Bridewell and Bethlem, in the beginning of the year 1819, published a book, of which book more need not be said, than that its aim is to refute the Hunterian Theory of Life, to revive the hateful and almost exploded doctrines of Materialism, to bring the sacred writings into disrepute, flatly denying the truth of some parts of them, and thereby to destroy all that belongs to man, beyond his prerogatives as 'a human animal.'

"At the election court of April, 1819, (all the officers upon these establishments are annually elected in open court) at the instance of two governors, both members of the House of Commons, and both of the House Committee of these hospitals, the surgeon was suspended as the author of that book. Intercession was made for him, and a letter to a governor (the treasurer of Guy's Hospital) was read, and entered upon the minutes of the proceedings, in which the author is reported to have retracted most of his infidel opinions, and had entered into a solemn pledge, and voluntary obligation, to suppress and prevent the circulation of his book."

Expressly upon these grounds, the general court of June, 1819, thought proper to reinstate the surgeon in his office.

"At the election court, holden the 2d of April, 1822, neither of the governors who had taken the lead in this affair was present. But another governor stated that he had reasons to believe that the surgeon had violated his pledge (as above stated), and moved his suspension; which motion, having been seconded by another governor thoroughly conversant with the merits of the case, was unanimously carried."

"At a general court, holden specially upon this business, upon the 26th of April, the conduct of the suspended officer, in these particulars, was in his presence fully investigated: he was charged with having parted with from four hundred to six hundred copies of this pernicious work, subsequently to the day upon which he pledged himself to the governors that he would suppress and prevent the circulation thereof; and, being upon his defence, he confessed, that he had parted with 'Four hundred and odd.' Upon which occasion he was, with as much consideration and tenderness as possible, but virtually, dismissed from his office as surgeon to these hospitals.

"Upon the 8th of May, inst. a special general court was held, for the sole purpose of receiving the report of the vacancy thus produced. This court, however, thought proper, in the absence of every governor who had taken any lead in the affair, to carry a resolution, declaring that this dismissed officer was eligible as a candidate to supply that very vacancy which his misconduct had occasioned: and, '*Credat Judæus Apella.*' at a general court of governors holden the next day, this very person was elected surgeon of the Royal Hospitals of Bridewell and Bethlem!"

You mention the number which appeared upon the ballot in Mr Lawrence's favour; your statement is not quite accurate, but no matter. I assure you, first, that Mr Lawrence owes his election to the "*esprit de corps*," which induced a most respectable candidate to retire, as soon as Mr Lawrence was pronounced eligible for the post; and secondly, that never did so few governors vote upon an election, when half the exertion was made upon the canvass.

An interesting fact that is not explained is that Lawrence entrusted the publication of the limited second edition of "four hundred and odd" copies of his lectures to William Benbow, who had formerly been publisher to William Cobbett. Benbow had been persecuted by the Constitutional Association and an attempt had been made to ruin his business.

In the summer of 1822 Wilberforce's society brought a charge of obscene libel against Benbow. Objection was taken to some love stories and songs and pictures in Benbow's "Rambler's Magazine," and also to a French novel published in sixpenny parts.

Benbow was acquitted, and this was the first case of libel in which the Vice Society had failed to obtain a conviction.

Carlile in "The Republican" made these comments on the Benbow case and "The Ramblers' Magazine:"—

"It is by no means a credit to us that such a work should emanate from a publisher of Reform publications. It professes to be a collection of amatory cases . . . with all such matter as are calculated to incite public curiosity by their wantonness and excess. Such publications are evidently mischievous to public morals. I condemn them, and I regret that they should emanate from the same shop as the works of Paine and Lawrence."

In the meantime Carlile himself, despite Lawrence's formal protests, republished the Lectures in threepenny twice-weekly numbers.

Carlile made his own motives quite clear when in his "Address to Men of Science" he said :—

> I may be told that the Man of Science had much better pursue his studies and experiments in silence and private, and not expose himself to the persecution of bigots. The idea is slavish—disgraceful. Science has made sufficient progress in this country, and has a sufficient number of followers and admirers, to enable them by a single breath to dissipate all the bigotry in the country, or, at least, to silence all the idle clamour of the bigoted and interested about blasphemy and atheism, or any of their nonsense. Is the progress of Science to be submitted to an Excise, and are all discoveries to be treated like contraband goods, lest the trade and the tithes of the priest be injured? Shame on that man who can tacitly submit to such a system. And yet this is just what we are called upon to submit to, and threatened with punishment, and even banishment, if we murmur. I, as an humble individual, have resolved to break through these trammels, to violate all those degrading and disgraceful laws, and shall the Man of Science be silent, and see all that he values most dear, persecuted in my person, just because he will not proclaim that I am right, and that my enemies, and his enemies, are wrong? Now is the time for him to speak out—now is the time when he can do it effectually. My humble efforts have alarmed the whole of Corruption and Falsehood's hosts, and half frightened them to death, let but a few eminent and distinguished Men of Science stand forward and support me, and I have no fear of finishing well what I have endeavoured well to begin. I aspire to nothing more than to become the humble instrument of sounding and resounding their sentiments. I am anxious to sound a loud blast in the cause of Truth, of Reason, of Nature and her laws. I will give every Man of Science an opportunity of publishing his sentiments without any direct danger to himself : I will fill the gap of persecution for him, if a victim be still necessary to satisfy the revenge of dying Priestcraft.

Lawrence, by his retraction, had suffered a severe set-back, but it was not long before he was able by considerable ingenuity to take his revenge on Abernethy and the others who controlled the College of Surgeons.

In 1823, Thomas Wakley, M.R.C.S., an ardent young reformer of 28, founded *The Lancet*, and made it the organ of progressive medical opinion.

Wakley immediately opened a very bitter, acrimonious, and at times libellous campaign against the nepotism and jobbery then rampant among the leaders of the College of Surgeons, and the senior members of the surgical staffs of the London Hospitals.

He sent reporters to their lectures and published verbatim reports in *The Lancet.*

In a special weekly article, "Hospital Reports," he described in full detail incompetently performed operations and exposed any blunder in diagnosis and treatment made by the surgeons at the London hospitals.

It is very clear that Lawrence was Wakley's right-hand man in directing the policy of the new journal, and he was a most prolific contributor of articles appearing under his own name.

Sir Astley Cooper soon came to terms with Wakley and allowed his lectures to be published, provided that his name was omitted.

But John Abernethy, who was second only to Cooper among the leading surgeons, would not bargain in the same way. As a result, Abernethy was remorselessly criticised in the columns of the "Lancet," and his lectures were pirated. Although not possessing Lawrence's gift of oratory, Abernethy was a great teacher. His terse and quaint comments made when lecturing forced his listeners to understand and remember every detail. But, unfortunately, his jocular and sarcastic remarks when printed made strange reading. Wakley therefore picked out sections which had the effect of exaggerating Abernethy's peculiarities. Here is an extract of *The Lancet* report of Abernethy's lecture on "Erysipelas."

"If I am wrong, I shall be very happy to have my error pointed out and corrected.

"*I'll be hanged* if erysipelas is not always a result of a disordered state of the digestive organs.

"Egad, it is a travelling disease and, as I say, the parts are disposed to swell. . . . If it be seated in an unimportant part, *in the name of G*—— let it go on there.

"'Oh,' said the dresser, 'it is a case of erysipelas, and he only came in last week.' 'Good G——,' said I, 'is it possible? Ho! he had *his jawing tacks on board*, as a sailor would say!'"

Abernethy was very angry at being publicly satirised, and tried to get an injunction to prevent Wakley publishing his lectures; but Lord Eldon, the Lord Chancellor (who had characterised Lawrence's lectures as blasphemous), refused Abernethy the injunction on the ground that hospital lectures were delivered in a public capacity and were therefore public property.

In 1824 Wakley opened his campaign against the governing body of the College of Surgeons, and Lawrence became his principal collaborator and chief spokesman; it was in support of the campaign that Carlile addressed his open letter to the Surgeon of Dorchester Gaol in the columns of "The Republican."

The Medical Reform Movement which Wakley and Lawrence created received widespread support, and on February 18, 1826, Wakley convened the first meeting of members of the Royal College of Surgeons at the Freemasons' Tavern, at which Lawrence presided.

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Advertisement reproduced from Carlile's "Republican," April, 1822. Vol. 5, No. 16.

In an eloquent opening speech Lawrence constituted himself the mouthpiece of the aggrieved members. He dwelt upon the cruel and ridiculous characteristics of the members of the College which precluded all but a few teachers in London, Edinburgh, Glasgow, Aberdeen, and Dublin from giving certificates of attendance upon scientific lectures, which were essential prerequisites to entry for the examination for membership of the College.

After a detailed comparison of the merits of the hospital surgeons with those who as teachers in private schools were now prevented from giving certificates, Lawrence went on to point out that the privilege of recognition must have been conceded by the Council of the College to Scotland in some mockery, for it was well known that the schools at Aberdeen and Glasgow possessed no facilities for teaching practical anatomy, so that they could not give the instruction which the College had licensed them to impart.

Of Aberdeen and Glasgow he said :—" We know, gentlemen, that at least anatomy cannot be studied in these places with any hope of success. We are all aware of the great talents and acquirements of the gentlemen at the head of the anatomical schools in these places, but we are also aware that they are destitute of subjects."

Lawrence also pointed out that the great provincial surgeons, who were also very able teachers, were precluded from giving recognised certificates.

A unanimous resolution was passed " that the public and the members of the surgical profession very justly complain that the science of surgery has not been advanced nor its practitioners benefited either by the late corporation or the present Royal College of Surgeons in London."

At a second meeting on March 4th, 1826, with Lawrence again in the chair, it was reported that the Council of the College had, through its principal spokesman, John Abernethy, refused to co-operate in the promotion of any reform.

Wakley through the medium of *The Lancet* used every opportunity to attack Abernethy, and on November 18, 1826, published a verbatim report of a remarkable dispute that had occurred at Bart's, which was called " War at St Bartholomew's Hospital." There had been a serious quarrel between Mr Stanley, one of the surgeons to the hospital, and Mr Skey, a Demonstrator of Anatomy. The matter was brought to a climax in the Hospital Lecture Theatre when the parties met in verbal combat with Abernethy in the chair. The Theatre was crowded with students who enlivened the proceedings by a continuous flow of cheers, jeers, and interruptions, which Abernethy could not or would not control. The proceedings lasted for three days, and at the end Skey resigned his appointment and became a lecturer at a private Medical School in Aldersgate.

During the arguments between Stanley and Skey, accusations were made against Lawrence that he had made adverse comments to Stanley about Skey.

Lawrence was obliged to make a statement in defence of his character. This statement was reported in *The Lancet* for November 18th, 1826, as a description of " the war " at St Bart's. He said :—

"Upon my word, gentlemen, it would have been much more agreeable to me to have taken no part in the discussion going on here; however, the mode in which I have been mixed up in it makes it imperative on my part just to explain two or three points. I perfectly remember what passed at a meeting of the medical men when we were called together to consider who should be demonstrators. Now that was a very important meeting as involving the appointment of future lecturers; but that meeting ended in nothing and no appointment took place. It was a few days after that the accidental meeting between Mr Stanley and myself took place between us, which conversation no gentleman would have divulged without my consent, particularly with reference to any individual whose competence I may have spoken of unfavourably. I must now state, gentlemen, that I never said the appointment of Mr Skey as demonstrator made me side with the new school. I had no thought that a new school actually would be established. I told Mr Stanley that the respectability and reputation of the school could not continue unless the situations in it were filled by those who had the power of being useful to the students. Certainly I spoke doubtingly as to the advantages of appointing Mr Skey, not that I had any personal knowledge of his abilities. My opinion was culled from such facts as Mr Abernethy and Mr Stanley told me. I mentioned to Mr Stanley that it was probable a new school would be started if things continued on the same plan. I alluded to a vague rumour, but I said that it would be to the public benefit if the present system at this school were to continue; and I told him this with a view to prevent what has since taken place. And I think if what I suggested had been done the new school would not have started. I will now go on to July when an official letter was sent to the medical men to ask if they intended to take part in the lectures; to mine I replied that I was prepared to lecture on surgery. I had no answer. At that time there was no intention to start the new school and it was not till later that I was asked if I would take part in it, should it be formed. The school is not mine, but having no opportunity at this school I did feel justified in accepting that offer, but the establishment was not at all expected at the time Mr Stanley has spoken of."

Wakley in a leading article in *The Lancet* of Nov. 18, 1826, said, when commenting on the unfortunate incident, "The entire blame rests with Mr Abernethy."

On June 20, 1827, a Petition from members of the Royal College of Surgeons, organised by Wakley, was presented to Parliament by Henry Warburton, M.P. The House of Commons ordered a return to be made of public money that had been lent or granted to the College. But the influence of the Council of the College was too strong, and it was a barren victory for the Reformers.

In the following year Lawrence secured his own election as a member of the Council of the College!

He not only immediately deserted Wakley and the Reformers but became their most powerful adversary and their bitterest foe. There were cries of "Traitor" when Lawrence's desertion became known. Wakley and Lawrence, who knew too much of each other's previous

activities behind the scenes, preserved for the time being a kind of armistice. Wakley had to consider the confidences of those who had written anonymously for *The Lancet* but whose identities were known to Lawrence; and he felt that the future of many who had helped him was now in the hands of one who had suddenly become an unscrupulous adversary. On the other hand, Lawrence had written anonymously some of the wittiest and bitterest indictments of the leaders of the profession who had now become his closest colleagues.

But a truce did not last long, for Lawrence was one of those who in 1831 ordered the forcible removal of Wakley from the Theatre of the College by Bow Street officers when he attempted to voice some very real grievances of naval surgeons. Wakley was a powerfully-built and athletic man, and it was only after a tremendous tussle that he was eventually removed.

In 1840 and 1858 Lawrence was President of the College, and he steadily maintained the privileges of that institution against all further agitations.

He built up a very large and highly remunerative private practice, including many cases of ophthalmic surgery. He exercised until his death a dominating influence over the Medical School at Bart's. He usually got his own way, for it was seldom that anybody dare oppose him.

Court appointments came to him very late in his career, for it was not until 1857, when he was 74 and obviously too aged to operate, that he was appointed Serjeant-Surgeon to Queen Victoria.

There was probably a very good reason for this delay, for the Lord Almoner to the Queen and a person of very great influence in Court circles was Dr Samuel Wilberforce, Bishop of Oxford. "Soapy Sam," as the Bishop was universally nicknamed, was the son of William Wilberforce whose Vice Society Lawrence had so strongly censured in his younger days. The surgeon's youthful indiscretions had not been entirely forgotten although he had subsequently made full amends.

Death ran a close race with the baronetcy which was eventually conferred on him in April, 1867. Less than a fortnight afterwards he had a stroke on the staircase of the Royal College of Surgeons (where he was still examining at the age of 83) and he died on July 5, 1867.

Lawrence was the greatest orator in the medical profession of his time, and probably the finest lecturer on surgery in Europe.

See Appendix C for Sir James Paget's opinion

His learning was profound, his literary contributions prolific, and he did much original work on the surgery of the age. Had Lawrence entered politics he would possibly have become a Cabinet Minister, probably an Elder Statesman, and undoubtedly a member of the House of Lords.

His recantation in 1819 is now only an interesting incident of Medical History; but the same cannot be said of his desertion and betrayal of Wakley and the Medical Reformers in 1828.

The medical profession and the community as a whole would be benefiting to-day if more of Wakley's plans had been put into operation. On Lawrence must rest the responsibility for this non-attainment. The tragedy of Lawrence was his lust for self-advancement.

The greatest tribute ever paid him was probably that of Richard Carlile when Carlile coupled his name with that of Paine. For Carlile revered the name of Thomas Paine.

THOMAS WAKLEY

THE SURGEON WHO BECAME A A PARTY LEADER

Richard Carlile, during the latter part of his long imprisonment in Dorchester Gaol—that is, after the completion of his three-years sentence and during the time that he was detained for his failure to pay the fines of £1500—submitted three petitions to Parliament for his release. The first two were presented by Joseph Hume, the third by Henry Brougham.

Joseph Hume was born in Montrose, Forfarshire, in 1777. His mother, like Carlile's, was early left a widow, and she kept a crockery stall in Montrose market place. At the early age of thirteen Hume was apprenticed to a local surgeon and after subsequent study at Aberdeen, Edinburgh and London, qualified as a member of the Royal College of Surgeons of Edinburgh in 1796.

In the following year he became assistant surgeon to the sea service of the East India Company. Later he transferred to the land service of the Company and having learned Hindustani and Persian was employed in political duties. He was appointed to the Army in India in 1801 and became a surgeon and interpreter to the 18th Sepoy Regiment during the Maharatta War.

Hume was an extremely versatile man, for he devised a safe means of drying damp gunpowder and also undertook important administrative duties. He had a keen eye to business and amassed a fortune of not less than £40,000 before returning to England in 1808.

Having a substantial income he ceased to practise as a surgeon and for a time devoted himself to travel and to a study of social questions. In January, 1812, he was elected M.P. for Weymouth, having purchased from the proprietor two elections for the constituency. Failing, however, to secure re-nomination on the second occasion, Hume, with characteristic thoroughness, sued the proprietor and recovered part of the purchase money. In 1818 he was returned to Parliament as a member for the Border borough and remained an M.P., except for a brief interval, until his death in 1855.

He was the Parliamentary spokesman of Francis Place, Robert Owen, and John Stuart Mill. He was a prolific but dull speaker and made his greatest reputation as a persistent advocate of retrenchment in public expenditure. It was as Leader of the Radical Party that Hume presented Carlile's two petitions to the House of Commons in 1823 and 1825.

Hume supported the campaign for Medical Reform initiated by Wakley and Lawrence and was present at the meetings of members of the Royal College of Surgeons at the Freemasons Tavern. He did not, however, present the petition from these conferences to the House of Commons. This task was entrusted to Henry Warburton who, although not a member of the medical profession, appeared to be better acquainted with medical politics than was Hume.

Wakley, soon after he was forcibly ejected from the theatre of the Royal College of Surgeons, prepared an elaborate scheme for the establishment of a new Corporation of Surgeons—the London College of Medicine—designed to outrival the Royal College of Surgeons. Wakley secured the co-operation of Hume who consented to take the chair at the preliminary meetings. But Hume, now entirely absorbed in economic and financial problems, was unable to give very effective support, and Wakley's project ended in an early and dismal failure.

When Wakley decided to become a Candidate for Parliament in order to espouse there his demand for Medical Reform, Hume was his principal backer and subsequently gave him much encouragement. He was the seconder of Wakley's first and perhaps greatest Parliamentary speech—a two-and-a-half hours' feat of impassioned oratory in moving a resolution demanding that a free pardon be granted to the transported Dorsetshire Labourers (the Tolpuddle Martyrs).

This is the background and character of Joseph Hume who, in February, 1825, presented a petition to Parliament referring to Carlile. This was dealt with in the *Republican*, and Carlile first quoted from the *New Times* newspaper, thus :

> Mr Hume presented a petition from Richard Carlile, stating that he had been imprisoned for certain conscientious opinions, and was then in gaol in consequence of the non-payment of the fines which had been imposed on him, amounting in toto to £1500, that the Government seized and still possessed certain books, his property, to the value of £3000; that he would pay the fines if the Government returned that property to him; and finally praying that Parliament may repeal the laws through whose operation he had suffered and was still suffering under these grievances. Mr Hume thought Mr Carlile's a hard case and worthy of the attention of the Government. If the seized property consisted of prohibited books exclusively, the Government would certainly be justified in keeping them from the public, but Mr Hume was instructed that among those books were many unobjectionable and innoxious works. . . . As a friend of religion, he could not but declare he thought the prosecutions by the Vice Society for religious opinions were productive of great injury to Religion itself. He regretted that the Government did not use its influence to prevent them. In the case of Mr Carlile he thought the Government ought either to restore to him his property or his liberty.
>
> Mr Secretary Peel said he was far from entertaining a wish to deal harshly with persons in confinement under such circumstances. As a proof of his disposition not to proceed according to the strict rigour of the law, he should refer to his having ordered the sister of the petitioner, who was confined in the same prison, to be liberated although unable to pay her fine. The conduct of the petitioner was altogether unlike that of Mary Anne Carlile. He was always promulgating his offensive and dangerous doctrines within the prison, and even circulating inside the walls works similar to those which had caused his imprisonment. Nay, he went so far as to intimate to Government that he considered his confinement altogether illegal, and that there was nothing to prevent his murdering the first keeper he met that opposed his going out of prison. Had his conduct been less exceptional, and he conformed himself to the regulations of the prison, his confinement would not

have been so strict. But he really considered it both improper and a waste of time to call upon the House upon this and similar occasions to interfere with the criminal justice of the country, merely on the representation of the parties themselves.

Mr Hume said it was possible that this violent language had been made use of in one of his paroxysms of temporary derangement, arising as it was believed from the irritation of his mind from the loss of his property and long confinement, one of which lasted for forty-eight hours continuously. He did not affect to point out to the Learned Gentlemen or the Rt. Hon. Secretary what ought to be done in this case. There ought, however, to be a remedy for every wrong, and there would scarcely be a doubt that there was a wrong here to be redressed.

The petition was ordered to be printed.

Then follows Carlile's comment on this report:—

Here, as in the *Morning Chronicle*, Mr Hume is made to talk about *prohibited books*, or *books prohibited to be sold by law*, which is talking at least ignorantly; for the law of this country prohibits no books, not even Paine's Age of Reason and Palmer's Principles of Nature, none of which were among my seized stock. One of the six acts enacts, that it shall be legal to seize seditious or blasphemous books from an individual, who has been convicted of the publication by the verdict of a Jury, provided, that such books are the property of such individual; but that any other person may safely hold copies of this work, and with respect to myself, the law has been a dead letter; for I reprint and exhibit these works the same as the others, and will baffle that part of the law if it be put in force. FREE DISCUSSION AGAINST ALL LAW!

Mr Hume is also made to attack the Vice Society which had nothing to do with the subject of my petition, nor with my case; besides it was kicking a dead ass. . . . .

. . . With Mr Peel's observations I must deal elsewhere. At the lie, about my threat to murder the keeper, a general cry of "Hear" is reported to have been raised in the House; but it was a lie and Mr Hume ought then and there to have exposed it. Instead of which, we are told, that he admitted its truth, and attempted to excuse it as a paroxysm of temporary derangement! If Mr Hume did say what he is there reported to have said, I proclaim him a vile caitiff; but I doubt it. Still he has done nothing towards contradicting it; therefore, I, as well as other readers of the *New Times*, must receive it as a true report. I tell Mr Hume, that I never was more violent than himself. I tell Mr Hume that I never exhibited more symptoms of insanity than himself, if so many."

It seems clear that Hume, when referring to Carlile's mental aberrations, was relying on "hearsay evidence" and on misleading reports that had appeared in the *New Times*, a Government organ, which stated in December, 1823, that Carlile was mad and had had to be put in a strait-jacket.

If this report was correct and if Carlile had shown signs of insanity at any time during his long detention, Peel and the Government would have lost no opportunity of having Carlile transferred to a Lunatic Asylum, never to be released. Furthermore, Carlile could, at any

time after 1822, have secured his immediate release by the payment of his fines and the furnishing of the required sureties.

Francis Place and Jeremy Bentham, both men of great influence, subscribed to a fund on his behalf while he was at Dorchester; and Julian Hibbert, a writer and poet, spent no less than £7000 in ten years in support of Carlile's campaigns.

Carlile received considerable help from small subscribers, especially from members of "Zetetic Societies" which had been established in all parts of the country to disseminate his propaganda and his publications.

But "General" Carlile's army was a large one, and he had to victual and support at different times a considerable number of his imprisoned shopmen and shopwomen and their impoverished dependents, as well as arrange for the continuous printing and circulation of his publications—often under the greatest difficulties. To win the battle was his one object, and this he did although he himself had been taken prisoner.

Furthermore, an examination of his writings at the period when the *New Times* declared him to be insane does not indicate any deviation from the accustomed vigour and clarity of his pen. The mental torture imposed on Carlile was enough to have broken the resistance of the strongest man, but it did not break Carlile, and when he was unconditionally released six months after the rejection of the petition presented by Joseph Hume, he acquired new premises in Fleet Street and continued his defiant campaign without further molestation for at least six years.

THE SURGEON WHO BECAME THE DEVIL'S CHAPLAIN

Soon after Carlile had been released from Dorchester Gaol in 1825, he terminated the publication of "The Republican." It had usefully fulfilled its purpose.

In 1826 he inaugurated a new journal, "The Lion," in support of the Reverend Robert Taylor, M.R.C.S.—"The Devil's Chaplain."

This nickname was bestowed on Taylor by "Orator" Henry Hunt, the Reform leader and hero of Peterloo.

Taylor, who was born in 1784 at Edmonton, was articled as a pupil to Samuel Partridge, House Surgeon at Birmingham General Hospital. He later studied at the United Hospitals of St Thomas's and Guy's, and qualified as a member of the Royal College of Surgeons in 1807.

Not long afterwards, Taylor decided to take Holy Orders. He won a scholarship to St John's College, Cambridge, and graduated in 1813. While at Cambridge, Taylor was said by Simeon, the leader of the Evangelical Movement, to be the cleverest and most religious man at the University.

Taylor was ordained in 1813 and became a curate at Midhurst.

He was soon attracted to the Freethought movement and resigned his curacy after preaching a sermon in which he ridiculed the story of Jonah and the whale.

He was obliged to make a recantation, but this action did not benefit him, for wherever he went—to Staffordshire, to the Isle of Man, and to Dublin—the Diocesan Bishops inhibited him from accepting any church appointment.

In 1824 he became an atheist and returned to London to inaugurate the "Christian Evidence Society."

He contributed articles to "The Republican," and his name appears in "The Newgate Monthly Magazine" among the subscribers to a fund for assisting Carlile's principal imprisoned shopmen.

In 1826 he was indicted for blasphemy at the Guildhall Court of the King's Bench. At his trial he appeared in full canonicals and defended himself with great ability. He was convicted and sentenced to one year's imprisonment in Oakham Gaol and ordered to find sureties in one thousand pounds for his good behaviour for three years. It was Taylor's imprisonment that induced Carlile to publish "The Lion."

While incarcerated at Oakham, Taylor wrote his "Syntagma" and "The Diegesis," in which he developed his astronomico-theological theories that the Christian religion had its origin in the phenomena of the heavens.

On his release from prison, Taylor spoke at meetings of an Adult School in Carlile's house at 62 Fleet Street, and at the Universalists' Chapel near Finsbury Square.

In collaboration with Carlile he undertook an Infidel Mission throughout the North of England.

As Taylor was insolvent, Carlile assumed responsibility for financing the enterprise. They left London on May 21st, 1829, and their first stop was at Cambridge, where Taylor fastened a thesis on the door of

the Divinity School and prepared and dispatched—with Carlile's help—to the University authorities the following "circular of challenge"—

> "the Rev. Robert Taylor, A.B., of Carey Street, Lincolns Inn, and Mr Richard Carlile, of Fleet Street, London, present their compliments as Infidel missionaries, to ..... and most respectfully and earnestly invite discussion on the merits of the Christian religion, which they argumentatively challenge, in the confidence of their competence to prove, that such a person as Jesus Christ, alleged to be of Nazareth, never existed; and that the Christian religion had no such origin as has been pretended; neither is it in any way beneficial to mankind; but that it is nothing more than an emanation from the ancient Pagan religion. The researches of the Rev. Robert Taylor on this subject are embodied in his newly-published work, *The Diegesis*, in which may be found the routine of their argument. They also impugn the honesty of a continued preaching while discussion is challenged on the whole merits of the Christian religion."

The recipients of this challenge speedily held a consultation to ascertain what could be done, and they were not slow to act.

The unfortunate lodging-house keeper where Carlile and Taylor had found accommodation, a married man with six children, was deprived of his licence to let rooms to undergraduates.

Carlile was not impressed by his companion's Alma Mater, and came to the conclusion that he had gained far more useful knowledge during his six years' residence at Dorchester Gaol than any man had been able to acquire in the leisured tranquility of Cambridge.

Early in June the two lecturers moved on to Nottingham, where they met with even greater opposition and difficulties. It was found impossible to hire a hall for meetings. Conditions in the town were very bad. "The public-house mania," wrote Carlile, "and the chapel mania, both alike mischievous, are the chief features of the town." He formed the opinion that the inhabitants were victims of "religion, tobacco smoke, Cobbett, bad habits, bad air, and bad ale."

From Nottingham they travelled to Leeds, which Carlile regarded as worse than Hell. Here, thought Carlile, were people who were far more bound in slavery than any blacks in the West Indies. The blacks were well housed and fed compared with the working classes of Leeds who were starved, abused, neglected, overworked, without pity or mercy, or hope. "The *metallic* machinery is far more valued here than that which we are told is moved by immortal souls." And yet "these good Christian consumers of British flesh and blood, who never entertained a thought or wish, or care, for the humanity under their immediate observance in a condition than which humanity never was nor never could be worse, will contribute to raise subscriptions for the purpose of abolishing the slave trade, emancipating negroes, and converting the precious immortal souls of the Chickesaws and Chocksaws."

After Leeds, Bradford, where again there was depression. Here Carlile was struck afresh by the problems of over-population and wrote of "Children with as little prospect of intellectual and usefully social cultivation as a litter of pigs. . . . Born for disease and misery as

pigs are bred for the knife. . . . Excessive child-getting, a crime of higher degree than child-murder, one of the main causes of human degradation, slavery, and want."

They proceeded from Bradford to the principal towns of Lancashire and Yorkshire, issuing challenges to local leaders of religion. Everywhere they saw the same depression and poverty of the people.

It is not surprising that Carlile thus closed one of his weekly letters: "A moral country this, forsooth! a happy country! a country which Omnipotence has exerted itself to bless! O priests, preachers, and supernaturalists of all denominations, ye set out with imagining a state of damnation elsewhere; ye have realised a hell on earth. There is one comfort yet: there can be no change but for the better!"

On their return to London, Carlile and Taylor reopened a former Music Hall, The Rotunda, close to the southern approach to Blackfriars Bridge, as a "Freethought Coliseum."

Taylor's orations were featured weekly as "The Devil's Pulpit" in a new journal, "The Prompter," which Carlile inaugurated and published.

The "Freethought Coliseum" became so popular that the Government attempted, through the military, to incite a riot, but this was foiled by Carlile.

In 1831 both Carlile and Taylor were sentenced to further terms of imprisonment.

Carlile was charged with sedition, for having encouraged and supported agricultural labourers who were on strike. He received a sentence of thirty-two months' imprisonment in the Compter, Giltspur Street, and ordered to give recognisances in £500.

Taylor was shortly afterwards indicted for blasphemy, and sentenced to two years' imprisonment as an ordinary felon in Horsemonger Lane Gaol. He was also ordered to pay a fine of £200 and to provide a surety for his good behaviour in a further sum of £200.

On July 20, 1831, Carlile sent Taylor a letter, very different in tone from the one he had addressed to the surgeon of Dorchester Gaol. Carlile wrote:—

> "My first duty to society is to seek the preservation of your life; your first is to preserve it as far as is in your power. If you die, we shall not fill the chasm for many years if all the genius of England were to unite its efforts. . . . You say Walter, the gaoler, insults you. That is your fault. It is not in the power of a man to insult me. The world could not do it if it were to try. Assault is one thing, but insult is another, and there can only be insult where there is a disposition to court it. Human nature is capable of a dignity that will not leave room for the word insult. Unfortunately you have the temperament that encourages villainy to be insolent. Let us try if reason cannot cure you of this disorder, which to you, at this moment, is as bad and dangerous a plague as the cholera morbus. . . . It is now with you no time for poetry, for rhapsody, or for jest. You have, and we have for you a serious game to play. . . . Yours is a glorious situation if you will but fight

your battle well. Having gained the necessaries—the physical necessaries of life—you should now make every shot tell among the enemy. It has hitherto been your fault to present your weak side to your enemy. You have in you the spirit of a divinity and not allow another shot of theirs to reach you. . . . that is invincible. You have the spirit of humanity also that is weak and to be conquered—now which will you present to your enemies? They are not to be subdued by appeals to their sympathy or by any moral force. You must subdue them by making them afraid. They will beat you at any game that is wrong, they will be powerless if you will avail yourself of your best and fairest means of warfare. . . . You have everthing to conquer, and you must begin your reform at home and first conquer your own self command; patience is not so necessary as a cool methodical warfare. . . . For the sake of our glorious cause, let nothing come from your pen about the gaol that can be contradicted. You have not been sufficiently careful. It is not a time for a joke; your enemies will call your jokes lies, and to the world at large they are lies. Give your gaol enemies but one real ground of complaint against you, and you give them justification for their worst intentions. I wish I could pour an opiate over your irritability, and say, 'be composed.' You want composure, coolness, dignity, patience, fortitude, for your present situation; but I know it is not to be commanded. You must reason with yourself, and write down laws for your own government in prison. You will do this coolly, and they will keep you cool. Beyond what you print I would have you keep a journal, as you have the taste and application for journal keeping."

Carlile was unconditionally released after serving just over two years of his sentence. As usual, he refused to be bound over, and this portion of the penalties was remitted.

Only a few weeks later, he was re-arrested for his refusal to pay church rates assessed on his shop and dwelling-house at 62 Fleet Street.

He was fined forty shillings and was bound over for three years. These penalties he refused to accept and he was then sentenced to three years' imprisonment. He returned to the Compter and wrote "I would rather be free in prison than shackled outside."

Four months later he was unconditionally released, and he and Taylor again spoke together at the Rotunda.

But their association soon ended, for Taylor retired from the public platform, married a wealthy woman, and lived abroad where he practised as a surgeon. He died in Jersey in 1844.

Taylor was a brilliant speaker and a great scholar. If he had not given up Medicine in his early days he would probably have been the greatest lecturer in the country, for his powers of oratory were undoubtedly far greater than those of Lawrence.

If he had not preached that heretical sermon at Midhurst but had been content to embrace the Christian religion with some outward

ROBERT TAYLOR.

pretence of orthodoxy, he would no doubt have become an important ecclesiastical dignitary, and probably a bishop.

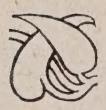
If he had chosen to become an actor, he would have achieved astonishing success, for his voice was said to be magnificent, closely resembling that of Charles Kemble.

But it seems very doubtful whether Taylor could ever have remained orthodox in anything for very long.

Taylor compared unfavourably with Carlile; for though he had had a very extensive education which Carlile had never enjoyed, for their upbringing was totally different, Taylor had not Carlile's moral stamina nor his breadth of outlook. Taylor would never concern himself with anything except highly disputable theological questions.

Taylor did not strive, as Carlile always strove, to battle with great social evils.

(The reader is referred to the Appendix, "Taylorism.")



THE SURGEON AT THE POST-MORTEM

Early in 1843 Richard Carlile became seriously ill.

It has been stated by one of his biographers, G. J. Holyoake, that he was attended by Lawrence, who was thus able to return the compliment that Carlile had paid him over twenty years earlier.

Carlile died on February 10th, 1843, at No. 1 Bouverie Street, the cause of his death being certified as Bronchitis. Although a substantial annuity had been provided for Mrs Carlile, he himself died in poverty; his income at times had been considerable but he had frequently been heavily penalised by the closing of his shops and the seizure of his stock by sheriff-officers, and he had personally financed many of the campaigns and agitations with which he had been actively identified.

There was little to dispose of except his body, and according to *The Times* "Mr Carlile directed that his body should be delivered to Mr Lawrence for dissection and that his bones should be afterwards burned. Mr Lawrence declined having anything to do with the body; it was therefore handed over to St Thomas's Hospital."

Carlile's body was probably accepted by St Thomas's Hospital through the influence of Richard Dugard Grainger, F.R.S., who had recently accepted the appointment of Lecturer on Anatomy and Physiology at that Hospital, after he had been obliged to close the Webb Street Medical School, Southwark, which had been founded by his brother, Edward Grainger.

Richard Grainger had been subjected to a great deal of persecution by the Council of the College of Surgeons, but he had always had a champion in Wakley who had himself studied at the Webb Street School.

Both the Graingers were famous teachers, and Richard subsequently became a pioneer of Hygiene, a promoter of Sanitary Reform, and a member of several Royal Commissions before his death in 1865.

At the time of Carlile's death, Thomas Wakley was Independent Radical M.P. for Finsbury and Coroner for West Middlesex. He had contested many libel actions in the courts, and was actively associated with every Reform movement both in and out of Parliament.

He had bitterly opposed the inhuman Poor Law Amendment Act of 1834, and by a great and impassioned speech in the House of Commons he secured a pardon for the Dorset labourers (The Tolpuddle Martyrs) who had been sentenced to fourteen years' transportation for combining to resist the reduction of their wages. Wakley, who was frequently caricatured and satirised in the early numbers of *Punch*, was held in high esteem by Charles Dickens. Until his death in 1862, Wakley pioneered many further reforms, including the abolition of flogging in the Army, the Medical Act of 1858, and much legislation against food adulteration.

When Carlile died, Wakley was still vigorously attacking the College of Surgeons and the Medical Schools of the London Hospitals.

REGISTRATION DISTRICT CITY OF LONDON

1843. DEATH in the Sub-District of South West District in the ~~County~~ City of London Union

No.	When and Where Died. (1)	Name and Surname. (2)	Sex. (3)	Age. (4)	Rank or Profession. (5)	Cause of Death. (6)	Signature, Description and Residence of Informant. (7)	When Registered. (8)	Signature of Registrar. (9)
95	Tenth of February 1843 Whitefriars Precinct	Richard Carlisle	Male	52 years	Bookseller	Bronchitis	Alfred Carlisle 1 Bouverie St. Present at Death	Twenty fifth of February 1843	William Arnott Registrar

RICHARD CARLILE'S DEATH CERTIFICATE

This is an official copy of the certificate issued to Carlile's son, Alfred Carlile. In copying it, a mistake must have been made, as Carlile's name was spelt without the ''s.''

Lawrence did not escape the vitriol of his former co-agitator for Medical Reform. In an editorial in *The Lancet* of October 1st, 1842, Wakley asked "How often does William Lawrence give clinical information to his students?" and the report of a lecture by Lawrence at Bart's closed with the sneering remark "he (Lawrence) concluded a long address with a moral and religious peroration."

Wakley certainly did not allow Carlile's "dissection" to go unnoticed, and made it the occasion for a special report in *The Lancet* of February 18th, 1843.

"ST. THOMAS'S HOSPITAL

Examination of the Body of Mr Richard Carlile.

"The well-known Mr Richard Carlile, bookseller, late of Fleet-St., bequeathed his body for the purpose of anatomical dissection. By permission of the governors of St Thomas's Hospital his remains were removed from his residence in Bouverie Street, Fleet Street, to that institution, and on Tuesday last there was a numerous assemblage of the friends of the deceased and members of the medical profession, in the anatomical theatre, to witness his post-mortem examination. The chest and abdomen merely were opened, and the necessity that existed for the knowledge of anatomy not only to the surgeon, but to the physician, was shown. Mr Grainger delivered a short address on the occasion, thinking that the object of the deceased would be obtained by this simple proceeding in public, and by a statement of the motives which had actuated him on giving his remains for dissection.

"'The illustrious Bentham, actuated by the same benevolent feeling, had, at the close of the last century, left his body for dissection, and that at a time when the prejudice against anatomical examinations was so great that bodies were procured with the utmost difficulty. The popular feeling against dissection was, perhaps, at the present time, less than at that time, but still sufficiently strong to interfere materially with that due supply of subjects which was so essential to the proper education of the medical student, and of such vital importance to the community at large. Mr Carlile deserved the approbation of all friends of humanity for attempting to remove this prejudice by leaving his remains for anatomical purposes.'

"Mr Grainger dwelt on the importance of a knowledge of anatomy to every person practising medicine or surgery, and illustrated this by some well-known examples, as operations for hernia and aneurism, and of injuries to joints and fractures. He said that the present Anatomy Act was in a great degree inoperative, and that during the early part of the session many students could not obtain subjects, and idle habits were thus engendered in them, or they at least were subjected to a great loss of time. He feared that no government would be strong enough to bring in a bill that would remedy this defect in the present state of the public mind respecting post-mortem dissections. He remarked that he had often

been placed in a most unpleasant position by being unable to obtain subjects upon which country practitioners could refresh their anatomical knowledge previous to the performance of an operation. What an amount of injury to the living must result when medical practitioners were ignorant of anatomy!

"He proceeded to show that the difficulties in the pursuit of anatomical knowledge were such, in this country, that no lecturer had ever yet been able to complete a course of operative surgery, properly so called, and that many students, to become proficient, were obliged to repair to France for the purpose of obtaining a necessary supply of subjects. In the case of a war this resource would be cut off.

"He vindicated medical men from the charge of irreligion, and contended that medical and anatomical studies, if *properly* pursued, served to demonstrate the truth, not only of natural, but of revealed religion."

It was proposed that Carlile's skeleton should be placed in the Museum of St Thomas's Hospital, but to that his family would not consent.

During his lifetime and after his death Carlile had many critics and detractors, but nobody questioned his courage, his endurance,, and his complete devotion to what he considered to be his bounden duty. He said with absolute truth shortly before his death: "I am the same man that I have always been. I have gone neither to the right nor to the left. My aim has been to accomplish one great purpose."

In his private life he was a complete Puritan—a teetotaler, a non-smoker, and a strong opponent of gambling and of the theatre. But he never allowed these opinions to influence his judgment on what he considered to be much greater social evils.

His outstanding quality was his plain, downright, English common-sense. His common-sense made him a giant. For that he has never been forgiven.

See Appendix D for account of Carlile's Funeral

Appendices

I.—Carlile's Imprisonment in Dorchester Gaol

Carlile's cell was shared by his wife for two years, and one of their children, Hypatia, was born there.

On one occasion something Carlile said was taken as a threat to break out; so he was handcuffed, his saucepans and frying pans were removed, and a turnkey was put to stand by him while he cooked his dinner or mended his pen with a pocket-knife. To which attention Carlile replied by giving up his vegetarian diet and living like a lord on fried beefsteaks and boiled suet puddings and anything else that would keep the turnkey busy.

A grim but humorous reference is made to his prison experiences in "The Newgate Monthly Magazine" in 1826. This journal was published by Carlile on behalf of his principal imprisoned shopmen.

> "Delights of a Gaol."—You say that your doctor resorts to half a dozen prescriptions for the benefit of the prisoners: it is understood here, as a matter of some years standing, that our doctor has but one, which he divides into pill and powder. This was the case until of late, or so long as he found medicines. Now, he is called physician, and only writes for a druggist to supply; so that the prisoners are likely to be better treated on this head. By the bye, it brings to my mind, that I overlooked a good joke in writing to the doctor. His pills and powders were purely drastic or violent purges. My room is one of a tier under the infirmary. When I first came here, even the sick men, through a whole winter, had heavy irons about their legs, their bedsteads are also iron, so that, I had constant music. In the night the doctor's purges would operate so violently, that clatter, clatter and thump upon the floor came down the irons every quarter of an hour, when two or three were there; and as they could not all go to the water closet, sometimes not reach, rattle, rattle, rattle went the pot de chambre over my head. All this, you will say, was very comfortable. It sadly annoyed and frightened Mrs C. when she came here. I hear nothing of this now, no irons, no musical pots; the prescriptions do not purge so violently as the preparations; and, I meant to say, that an illustration of this, when writing to the doctor, would have been an excellent joke. I shall try to work it up into some sort of a pill or powder for him before I leave; for this was one of the spirit stirring delights of my imprisonment. Between the rooms there is but a simple lath, plaster, and boarded floor, and even there are open ventilations from one room to the other to make the air of all alike! So that, under me, sleep four or five debtors, and when their rooms get foul I have mine so immediately. I now sleep with the windows a little open at night as a relief from this."

Private letter from Mr Carlile, dated Dorchester Gaol, September 6th, 1825.

II (a)—Lawrence's Lectures

Lawrence's Lecture on "The Varieties of the Human Species" was subsequently to prove to be of interest to many outside the small gathering that had assembled in the lecture theatre of the College of Surgeons in Lincolns Inn Fields. Lawrence said :—

"The differences which exist between inhabitants of the different regions of the globe, both in bodily formation and in the faculties of the mind, are so striking that they must have attracted the notice even of the superficial observers. With those forms, proportions, and colours, which we consider so beautiful in the fine figures of Greece, contrast the woolly hair, the flat nose, the thick lips, the retreating forehead and advancing jaws, and black skin of the negro; or the broad, square face, narrow oblique eyes, beardless chin, coarse, straight hair, and olive colour of the Calmuck. Compare the ruddy and sanguine European with the jet-black African, the red man of America, the yellow Mongolian, or the South Sea Islander; the gigantic Patagonian, to the dwarfish Laplander; the highly civilised nations of Europe, so conspicuous in arts, science, literature, in all that can strengthen and adorn society, or exalt and dignify human nature, to a troop of naked, shivering, and starved New Hollanders, a horde of filthy Hottentots, or the whole of the more or less barbarous tribes that cover nearly the entire continent of Africa. Are they all brethren? Have they all descended from one stock? Or must we trace them to more than one?—and, if so, how many Adams must we admit?

The phenomena are capable of solution in either of three ways :— We may suppose that different kinds of men were originally created; that the forms and properties were impressed at first on the respective races; and consequently that the latter, as we now see them, must be referred to different original families, according to which suposition they will form in the language of Naturalists different species. Or, we may suppose that one kind of human beings only was formed in the first instance; and account for the diversity which is now observable by the agency of the various physical and moral causes to which they have been subsequently exposed; in which case they will only form different varieties of the same species.

The question belongs to the domain of natural history and physiology; we must be contented to proceed in our examination in the slow and humble, but sure method of observation. It will be necessary to ascertain carefully all the differences that actually exist between the various races of men; to compare them with the diversities observed among animals; to apply to them all the lights which human and comparative physiology can supply; and to draw our inferences concerning their nature and causes from all the direct information, and all the analogies, which these considerations may unfold.

Most persons, when they first turn their attention to the subject, and select for contemplation strongly-marked specimens of the

varieties of man, will be inclined to adopt the supposition of originally distinct species. This is the case with Voltaire who has recurred to the subject repeatedly in his various writings, and has expressed himself very positively, ridiculing the idea of referring such different beings as the Negro, European, African, Albino, etc., to the same original.

The disquisition will perhaps be deemed superfluous by those who regard the Hebrew Scriptures as writings composed with the assistance of divine inspiration, and therefore commanding our implicit consent; who receive, as a narrative of actual events, authenticated by the highest sanction, the account contained in Genesis of the formation of the world, the creation of man with animals and their dispersion over the face of the globe.

That Mosaic account does not, however, make it quite clear that the inhabitants of all the world descended from Adam and Eve. Moreover, the entire or even partial inspiration of the various writings comprehended in the Old Testament has been and is doubted by many persons, including learned divines, and distinguished oriental and Biblical scholars. The account of the creation, and subsequent events, has the allegorical, figurative character common to eastern compositions, and it is distinguished among the cosmogenics by a simple grandeur and natural sublimity, as the rest of the writings are by appropriate beauties in their respective parts, not inferior to those of any human compositions.

To the grounds of doubt, respective inspiration, which arise from examination of the various narratives, from knowledge of the original and other Oriental languages, and from the irreconcilable oposition between the passions and sentiments ascribed to the Deity by Moses, and that religion of peace and love unfolded by the Evangelists, I have only to add, that the representations of all the animals being brought before Adam in the first instance, and subsequently of their being all collected in the Ark, if we are to understand them as applied to the living inhabitants of the whole world, are zoologically impossible."

In the published lectures, Lawrence has added an explanatory footnote on the Mosaic theory that all the inhabitants of the world descended from Adam and Eve.

"We are told, indeed, that 'Adam called his wife's name Eve, because she was the mother of all living.' But, in the first chapter of Genesis we learn that God created man male and female; and this seems to have been previous to the formation of Eve, which did not take place until after the Garden of Eden had been prepared. Again, we learn in the fifth chapter of Genesis that 'in the day that God created man, in likeness to God made he him; male and female created he them; and blessed them, and called their name Adam, in the day when they were created.' We find also that Cain, after slaying his brother, was married, although no daughters of Eve are mentioned before this time. 'Cain went out from the presence of the Lord, and dwelt in the land of Nod, on the east of Eden, and Cain knew his wife, and she conceived and bore Enoch.'

Indeed it is said (ch.5, v. 4) that 'the days of Adam, after he had begotten Seth, were eight hundred years, and he begat sons and daughers.' This, it should seem, took place after the death of Seth, and consequently long after Cain had his wife; for Seth was not born till after the death of Abel. If Cain had sisters prior to that period, from amongst whom he might have taken a wife, Moses has not noticed them.'

Many of the views expresesd by Lawrence in his Lectures have now been superseded, but the opinions that he expressed in his lecture, "Arrangement of Animals," are of particular interest at the present time.

"I have already mentioned, that a fixed external form belongs to each animal, and that it is continued by generation. Certain forms, the same as those existing in the world at the present moment, have existed from time immemorial. Such, at least, is the result of the separate and combined proofs furnished by my own observation and experience respecting the laws of the animal kingdom, by the voice of tradition and of history, by the remains of antiquity, and by every kind of collateral evidence.

"All the animals belonging to one of these forms constitute what zoologists call a species. This resemblance must not be understood in a rigorous sense; for every being has its individual characteristics, of size, figure, colour, proportions. In this sense, the character of variety is stamped on all Nature's works. She has made it a fundamental law that no two of her productions are exactly alike; and this law is invariably observed through the whole creation. Each tree, each flower, each leaf, exemplifies it; every animal has its individual character; each human being has something distinguishing, in form, proportions, countenance, gesture, voice—in feeling, thought, and temper—in mental as well as corporeal physiognomy. This variety is the source of everything beautiful and interesting in the external world—the foundation of the whole moral fabric of the universe.

"I cannot help pointing out to you how strongly the voice of Nature, so clearly expressed in the obvious law, opposes all attempts at making mankind act or think alike. Yet the legislators and the rulers of the world have persisted, for centuries, in endeavouring to reduce the opinions, the belief of their subjects, to certain fanciful standards of perfection—to impress on human thoughts that dreary sameness, and dull monotony, which all the discipline and all the rigours of a religious sect have been hardly able to maintain in the outward garb of its followers. The mind, however, cannot be drilled, cannot be made to move at the word of command; it scorns all shackles; and rises with fresh energy from every new attempt to bind it down on this bed of Procrustes.

"All the oppression and persecution, all the bloodshed and misery, which the attempts to produce uniformity have occasioned, are, however, a less evil than the success of these mad efforts would be, were it possible for them to succeed in opposition to the natural

constitution of the human mind—to the general scheme and plain design of Nature.

"The most powerful monarch of modern history, who exhibited the rare example of a voluntary retreat from the cares of empire while still full able to wield the sceptre, was rendered sensible of the extreme folly he had been guilty of, in attempting to produce uniformity of opinion among the numerous subjects of his extensive dominions, by finding himself unable to make even two watches to go alike, although every part of this simple mechanism was constructed, formed, and adjusted by himself. The dear experience and the candid confession of Charles was thrown away on his bigoted son; who repeated on a still grander scale, with fresh horrors and cruelties, the bloody experiment of dragooning his subjects into uniformity, only to instruct the world by a still more memorable failure.

"The increasing light of reason has destroyed many of the remnants of ignorance and barbarism; but much remains to be done before the final accomplishment of the grand purpose, which, however delayed, cannot be ultimately defeated; I mean the complete emancipation of the mind; the destruction of the creeds and articles of faith; and the establishment of full freedom of opinion and belief. I cannot doubt that a day will arrive when the attempt at enforcing uniformity of opinion will be deemed as irrational, and as little desirable, as to endeavour at producing sameness of face and statures.

"In the meantime, no efforts capable of accelerating a consummation so beneficial to mankind should be omitted; and I have therefore to shew you that, on this point, the analogies of natural history accord with the dictates of reason, and the inevitable instructions of experience."

II (b)—Lawrence Lectures

On Life

The structure and functions of animals—their organization and life are the subjects of two sciences: *anatomy* and *physiology*. Although the functions are the offspring of the structure—or the life is the result of the organization— and the two are consequently connected, as cause and effect, they might undoubtedly be treated distinctly. It would be quite impossible to describe an animal body, to enumerate all its organs, to detail the size, figure, connexions, and various sensible properties of each, without saying one word of the living powers with which they are endowed, the uses to which they are subservient, or the sympathies and mutual influences by which they are bound together for the great purposes of their creation. We might certainly describe the heart, measure the size of its cavities, and detail their various openings and communications, without once speaking of the blood, or its course—without mentioning the controlling power of the organ, or the order and succession of its movements. But who would undertake the wearisome task of such a dry and uninteresting detail? or, what patience could sustain the attention of the hearer? What would you think of the person who should describe to you a watch or a steam engine in this way? Who would exhibit to you all the parts, and shew their position, without any explanation of their uses, without any reference to that nice adjustment, and mutual action, which render the one subservient to the important purpose of marking the division of time, and enable us, by the other, to execute the most stupendous monuments of human labour, or to produce the most striking results of human ingenuity? As I cannot for my own part discern what purpose of utility, much less what end of interest or amusement could be answered by such a merely anatomical detail, and as the separation of the science or organization from that of life seems to me most violent and unnatural, I shall not disjoin anatomy and physiology.

Our object being to take a survey of structure, and of the functions which it executes, through the whole animal kingdom, I shall inquire first, what we are to understand by an animal, and what idea we are to attach to life.

On this and all other occasions I shall endeavour to convey to you clear notions of the subjects which I propose for your attention; I will therefore carefully explain to you the sense of the terms employed, and avoid all those which have an equivocal meaning.

I exhort you to be particularly on your guard against loose and indefinite expressions: they are the bane of all science; and have been remarkably injurious in the different departments of our own.

Equal caution is necessary in verifying facts; the authenticity of which should always undergo a close examination. They are the foundation of our physiological reasonings; if they are insecure, the whole structure erected on them is at every moment liable to fall.

So long as we attend to these two points, the scrutiny of facts and the definition of terms, our progress, though slow, will be sure. On subjects not sufficiently examined, it is better to confess our ignorance, than to attempt to hide it by arbitrary assumption and vague language. We thus mark out objects for further investigation. Most of the physical sciences afford us excellent models for the method of proceeding. Unfortunately, the various branches of medical science abound with examples of all abuses, of facts loosely admitted, of words vaguely employed, or reasonings most incorrect and inconclusive.

I shall not be anxious to attract your attention by novelty, nor by multitude of details; but shall rather attempt to exhibit the various parts of the subject in their natural connexion and order; to lead you to a correct mode of reasoning; and to the best method of investigating and cultivating the science.

Organization means the peculiar composition which distinguishes living bodies; in this point of view they are contrasted with inorganic, inert, or dead bodies. Vital properties, such as sensibility and irritability, are the means by which organization is capable of executing its purposes; the vital properties of living bodies correspond to the physical properties of inorganic bodies; such as cohesion, elasticity, etc. Functions are the purposes, which any organ or system of organs executes in the animal frame; there is of course nothing corresponding to them in inorganic matter. Life is the assemblage of all the functions, and the general result of their exercise. Thus organization, vital properties, functions and life are expressions related to each other; in which organization is the instrument, vital properties the acting power, function the mode of action, and life the result.

The matter that surrounds us is divided into two great classes, living and dead; the latter is governed by physical laws, such as attraction, gravitation, chemical affinity; and it exhibits physical properties, such as cohesion, elasticity, divisibility, etc. Living matter also exhibits these properties, and is subject in great measure to physical laws. But living bodies are endowed moreover with a set of properties altogether different from these, and contrasting with them very remarkably. These are the vital properties or forces, which animate living matter, so long as it continues alive, are the source of the various phenomena which constitute the functions of the living animal body, and distinguish its history from that of dead matter.

It is justly observed by Cuvier that the idea of life is one of those general and obscure notions produced in us by observing a certain series of phenomena, possessing mutual relations, and succeeding each other in a constant order. We know not the nature of the link, that unites these phenomena, though we are sensible that a connection must exist; and this conviction is sufficient to induce us to give it a name, which the vulgar regard as the sign of a particular principle, though in fact that name can only indicate the assemblage of the phenomena, which have occasioned its formation. Thus, as the bodies of animals appear to resist, during a certain time, the laws which govern inanimate bodies, and even to act on all around them in a

manner entirely contrary to those laws, we employ the term life to designate what is at least an apparent exception to general laws. It is by determining exactly, in what the exceptions consist, that we shall fix the meaning of the term. For this purpose it is necessary to consider living bodies in their various relations with the rest of nature; and to contrast them carefully with inert substances; as it is only from the result of such a comparison that we can expect to derive a clear notion of life.

In reviewing the characters of organized bodies, this very name will lead us to consider, in the first place, the nature of their composition, and the points in which it differs from that of inorganic substances. Organization then, by the meaning of the term, denotes the possession of organs, or instruments for accomplishing certain purposes. The character of an inorganic substance is to be found in the properties of its integral particles; the mass which they may compose, whether solid, fluid, or gaseous, is unlimited; but its extent, whether great or small, neither adds nor takes away any thing that can change the nature of the body; that nature residing in each of the particles of which the whole is the aggregate. Thus a single grain of marble has the same characters as an entire mountain. A living body, on the contrary, derives its character from the whole mass, from the assemblage of all the parts. This character, which is more simple or complicated according to the place which the body occupies in the scale of being, is altogether different from that of its component particles. Even in so simple a creature as the polype, the individuality of the whole animal is quite different from that of its component atoms; but this difference is much more striking when we ascend in the scale, as for instance in a quadruped.

Inorganic bodies are for the most part homogeneous in their composition; but they may be heterogeneous. This depends on the accidental circumstances under which the aggregation has taken place. All living bodies, however simple in their organisation, are necessarily heterogeneous, or composed of dissimilar particles.

An inert substance may present a perfectly solid, fluid, or gaseous mass; but all bodies possessing life exhibit in their structure both solid and fluid parts. We find in no inert body that fibrous and celluar texture, nor that multiplicity of volatile elements which form the characters of organized bodies, whether in those that are alive, or in those that have lived.

The masses of dead matter have no form peculiar to the species; even when they are crystallized, the form of mass is not constantly the same. Living bodies, however, have always a form of characterizing the species to which they belong, and not capable of change without producing a new race.

The component atoms of an inert body are all independent of each other: whether the mass they form be a solid, liquid, or gas, each particle exists by itself, and derives its character from the number, properties, and state of combination of its principles, borrowing or deriving nothing from the similar or dissimilar atoms which are near it. On the contrary, the particles which make up a living body are

dependent on each other; they are all subject to the influence of a cause which animates them. This cause makes them all concur in the production of a common purpose, either in each organ or in the individual: and its variations produce corresponding changes in the state of the particles or organs.

Hitherto I have considered organzied bodies in respect to their composition, to what we may call their passive condition, or state of rest. But it is from a different order of phenomena that the most impressive notions of life will be derived. We must view them in activity; we must observe them, surrounded by chemical agents, yet preserved from chemical action; maintaining a composition apparently constant and identical, yet keeping up an incessant motion and change of their particles, in which the old materials are discharged and new ones converted into their own substance; producing new bodies, the seat of similar active powers with themselves, yet terminating their own existence by the very action of the principle that has so long preserved them.

You well know what happens to the body after death: its heat is lost, and it soon reaches the temperature of the surrounding medium: the eyes become dim, the lips and cheeks livid; the hue of the skin is altered; the fluids contained in the vessels, or cavities, and the substances lodged in the viscera of the body, penetrate their receptacles, and tinge all the surrounding parts. The flesh soon turns green or livid, diffuses ammoniacal effluvia or noxious exhalations in the atmosphere, or melts away into an offensive ichor. Such are the effects produced by the chemical action of the solids and fluids of the body on each other, and by the affinities of the surrounding agents air, moisture and heat to both. Yet the animal solids and fluids, and the viscera contents were in mutual contact during life; and the body was surrounded by the same external agents. But the vital forces were superior to these chemical affinities and superseded their action: the destructive power of these agents was suspended by the preservative power of life. So striking an operation could not fail to attract observation; and life has been even defined by Stahl and his followers, from this exemplification of its effects, that which prevents decomposition, *putredini contrarium;* now although this too limited view of the subject, inasmuch as the phenomena in question is only one out of several included under our notion of vitality, yet it belongs to the very essence of it, as we could not conceive life to last a moment if this power were withdrawn.

The regulation of animal temperature is a remarkable illustration of the operation of vital powers: it attracted the notice of Mr Hunter, and was made by him the subject of numerous highly interesting experiments. You know how soon heat becomes equally diffused through all surrounding inert bodies, the temperature of any one, that is either higher or lower than those around it, being speedily reduced or exalted to a level with them. Animals, however, maintain a certain standard temperature under all circumstances. The human body has one and the same heat in the intense colds of Siberia, Spitzbergen, and Greenland, where mercury freezes in the open air; and in the parched atmosphere of equinoctial Africa or America, where the thermometer

has exceeded 120 degrees; in the heated rooms of experimenters, where it has stood at 260 degrees; and in the stoves used for drying grain, where it has been as high as 290 degrees, and where a heat of 270 degrees was borne for a quarter of an hour.

In continuing our investigations we soon find that the force which binds together the particles of a living body does not confine its operation to this passive result. We see at least that living bodies can act on other matter; that they can convert it into their own substance, and thus augment the number of their component particles. We find the operation as constant as the exertion of that force, by which they resist decomposition. For the absorption of alimentary matter, its conversion into nutritive fluid, and the subsequent transmission of that fluid to all parts of the body, experience no interruption, and in plants at least there seems to be a constant absorption from the external surface.

Since however living bodies cannot increase indefinitely, but are confined in each case within certain limits, they must lose on one side what they gain on the other. Accordingly we find, besides the immense loss by transpiration, that there are constant movements of the internal parts, changes in their condition, and losses of substance connected with these alterations; thus we arrive at a very different view from that which we took at first; instead of a constant union among the component particles, we see a continued change, so that the body cannot be called the same in any two successive instants. We see a kind of circulation established, in which the old and useless elements are thrown out, and their place is supplied by new materials. The latter are deposited in the interstices of the particles already existing; or technically speaking they grow by introsusception.

In all these points there is a strong contrast in inorganic bodies; they are exposed to the action of all surrounding media: instead of exhibiting a constant motion, they can only remain unchanged in a state of rest; for, when any motion of the particles is excited, the body loses its form and consistence, if the agents be mechanical; its very nature, if it be chemical; their increase in volume is unlimited, and dependent on accidental circumstances; it is effected by juxtaposition, that is, by the addition of new particles on the outside of the old ones.

Having thus proceeded as far as we can in ascertaining the nature of life by the observation of its effects, we are naturally anxious to investigate its origin, to see how it is produced, and to inquire how it is communicated to the beings in which we find it. We endeavour therefore to observe the living bodies in the moment of their formation, to watch the time, when matter may be supposed to receive the stamp of life, and the inert mass to be quickened. Hitherto, however, physiologists have not been able to catch nature in the fact. Living bodies have never been observed otherwise than completely formed, enjoying already that vital force and producing those internal movements, the first cause of which we are desirous of knowing. However minute and feeble the parts of an embryo may be, when we are first capable of perceiving them, they then enjoy a real life, and possess the germ of all

the phenomena which that life may afterwards develop. These observations, extended to all the classes of living creatures, leads to this general fact, that there are none, which have not heretofore formed part of others similar to themselves, from which they have been detached. All have participated in the existence of other living beings before they exercised the functions of life themselves. Thus we find that the motion proper to living bodies, or in one word, Life, has its origin in that of their parents. From these parents they have received the vital impulse; and hence it is evident, that in the present state of things, life only proceeds from life; and there exists no other but that which has been transmitted from one living body to another by an interrupted succession.

Inorganic bodies and their masses grow up from the accidental union of particles, or combination of elements; that is they are formed in obedience to chemical and physical laws, of which we do not notice the action.

Foiled in our attempts to ascend to the origin of organized beings, we seek to inform ourselves concerning the real nature of the powers which animate them by examining their composition, by investigating their texture, and the union of their elements. In them only can the vital impulse have its source and foundation. In this branch of the inquiry nothing has been neglected; all the animal organs have been most closely scrutinized, examined in their mass and in detail, and analyzed into their constituent textures; each of which has been exposed to every variety of anatomical, chemical, and microscopic research. The animal fluids have been subjected, in like manner, to all the inquiries that the advanced state of modern chemical science could suggest, or its zealous cultivators execute. The result of all these inquiries, I have no hesitation in affirming, to be. that no connexion has been established, in any one case, between the organic texture and its vital power; that there is nothing, either in the nature of the tissue, or in the combination of the elements, of any animal structure, that could enable us to determine beforehand what kind of living phenomena it will exhibit: and consequently that this, like all other branches of human knowledge, consists simply in an observation of the succession of events. Would the mere examination of muscular fibres, without any observation of their living action, have ever enabled you to determine that they possess the power of contraction? Would a comparison of the fibres of the deltoid, the heart and the diaphragm have shewn you that the former will contract in obedience to the will, that the second are uninfluenced by the will; and that the third act both spontaneously and voluntarily? Would any length of contemplation have led you to discover that medullary substance is capable of sensation and of thought? Could you have known from the structure of the stomach that it digests, or from that of the liver that it secretes?

These, and all the other particulars we know about the nature of living properties and functions, are simply the result of observation; consequently our labours on the organic economy must be confined to its history.

Lastly, the destruction of living beings is effected in a peculiar and characteristic manner. The very nature of life is to produce, after a time, which varies in the different species, a state of the organs incompatible with the continuance of their functions; this mode of termination, by death, is therefore one of the laws to which organised beings are subject.

To these considerations I might add others, tending to establish still further the difference between physical and vital laws, and consequently between physical and vital phenomena; but it is sufficient to have proved, as I shall now recapitulate, that inert solids are composed only of similar particles, which attract each other, and never move except to separate; that they are resolvable into a very small number of elementary substances; that they are formed by chance, as we term it, or by the combination of those substances, and the juxtaposition of new particles; that they grow only by the juxtaposition of new particles, the strata of which envelope the preceding mass; and that they are destroyed only by some mechanical agent separating their particles, or some chemical agent, altering their combinations. While on the contrary, organized bodies, made of fibres and laminæ, having their interstices filled with fluids, and resolvable almost entirely into volatile products, are produced by a determinate function, that of generation; growing on bodies similar to themselves, from which they do not separate until they are sufficiently developed to act by their own powers; that they exhibit a constant internal movement of composition and decomposition, assimilating to their own substance foreign matters, which they deposit between their own particles; that they grow by an internal power, and finally perish by that internal principle, or by the effect of life itself, exhibiting, in their natural destruction or death, a phenomenon as constant as that of their first production.

We may establish then, as the general and common characteristics of all organized bodies, that they are produced by generation, that they grow by nutrition, and that they end by death. Such are the particular notions included under the term life, when we employ that word in its widest acceptation. This description applies to vegetables, as well as animals. But if there are many living beings that exhibit only the degree of life just described, there are many others in whom the process is much more complicated; in whom there are numerous organs, executing appropriate functions. Our idea of life must therefore be modified according to what we have learned by observation in each instance. Thus the life of a quadruped will be very different from that of an insect or worm.

In the study of the physical sciences, we observe the succession of events, ascertain their series and order, and refer the phenomena ultimately to those general properties or principles, of which the name does not indicate any independent existence, but is to be regarded merely as the generalized expression of the facts. Thus the chemist traces all the mutual actions between the component particles of bodies to their elective attractions or chemical affinities; the natural philosopher sees everywhere the exertion of gravity, elasticity, etc.

These words denote what we call the properties of matter, and what are said to be the causes of the phenomena in question. Experience does not shew us in what the essential action of any of these causes whatever consists, nor *how* any of the effects are produced; for example (to take a most common occurrence) we know not how motion is produced in a body by impulse. Experience can only exhibit the order and rule of succession of the phenomena, which indicate the action of the cause. When one event is observed constantly to precede another, the first of these is called cause, and the latter effect; and we believe that the preceding event has a power of producing that which succeeds; although, in reality, we know only the fact of succession. Hence, in natural philosophy, we only know the general causes by those laws which experience has established in the succession of the phenomena. These general causes, which have been called experimental, inasmuch as they are only known through the medium of experience, have been termed, indifferently, principles, powers, forces, faculties.

In our examination of the phenomena exhibited by living beings, we follow a method analogous to that pursued in the physical sciences. We trace the succession of events as far as observation and experiment will enable us to pursue them, and we refer them ultimately to a peculiar order of properties or forces, called vital, as their causes. These vital properties are the causes of vital functions in the same way as chemical affinity is the cause of the combinations and decompositions exercised among the common particles of bodies, or as attraction is the cause of the motions that occur among the great masses of matter.

Whatever we see in astronomy, hydraulics, mechanics, etc., must be ultimately referred, through the concatenation of causes, to gravity, elasticity, etc. In the same way the vital properties are the main spring at which we arrive, whatever phenomena we may be contemplating in respiration, digestion, secretion, and inflammation.

Among the most remarkable of these vital properties are sensibility and irritability—the power of perceiving or feeling, and that of contracting. To such properties we refer, in our ultimate analyses of the functions, as the mechanician does to elasticity, when he is explaining the motions of a watch, or the astronomer to gravitation, in accounting for the course of the heavenly bodies.

But are these only vital properties? Will they account for the phenomena exhibited by organized beings? Probably not, probably the analysis is not yet complete, or at least the powers, which observation has led us to discover, are not yet sufficiently distinguished. Sensibility implies consciousness; it is equivalent to the power of feeling; there is not only the capability of receiving an impression, but the additional power of referring that impression to a common centre; and this sense of the word is so strongly fixed by universal consent and long use, that its application to the vital acts, which are not attended with consciousness, strikes us at once not only as improper, but as contradictory. We cannot however avoid recognising that an impression is made, in various cases, on the animal organs, when no perception takes place. The blood excites the heart to contract—it excites the

capillaries of the glands to those motions which produce secretion, and the capillaries of the various organs to those operations which constitute nutrition, yet we have no word in physiology to denote the impressions made in these cases, unless we employ, with a late acute and most promising physiologist, whose premature death I cannot but regard as a very great loss to our science, sensibility; to which I have already stated my objections. Irritability, again, more particularly as it has been consecrated by long custom to that species of motion which is exhibited by the muscular fibres, is not well calculated to denote the invisible operations of capillary circulation, secretion, etc., which are known only by their effects.

If we cast a comparative glance along the series of living beings, we shall observe the vital properties, either the fewest, or the least active at the lower end of the scale, and gradually increasing in energy to the upper. Vegetables are traversed by fluids, which circulate in innumerable capillary tubes, which ascend and descend, and afford the materials of growth and of various secretions. All parts of the vegetable must be acted on by these fluids, and the vessels must react on them to produce the various effects of vegetable circulation, of secretion, absorption, and exhalation. Their vitality resembles that of the bones and some other parts in animals. In the commencement of the animal kingdom, as in the zoophites, there is a digestive cavity, alternately distended and emptied; here then the vital processes are attended with obvious motion. Hitherto organized bodies are fitted for supporting a mere existence; but, as we ascend, they begin to exhibit relations to surrounding objects; the senses and voluntary motion gradually make their appearance in worms, insects, and mollousca; the vital properties necessary to the exercise of these functions being added to what they possessed before. As we ascend through reptiles, fishes, birds, and quadrupeds, the powers of sensation and motion become much more energetic, much more active, and the internal life is at the same time more and more developed. Finally, the cerebral functions, which are much more numerous and diversified in the higher orders of the mammalia, than in any of the preceding divisions of the animal kingdom, receive their last development in man; where they produce all the phenomena of intellect, all those wonderful processes of thought, known under the names of memory, reflexion, association, judgment, reasoning, imagination, which so far transcend any analogous appearance in animals, that we almost feel a repugnance to refer them to the same principle.

If therefore we were to follow strictly the great series of living bodies through its whole extent, we should see the vital properties gradually increased in number and energy from the last of plants—the mosses or the algæ—to the first of animals—Man.

I have pointed out to you the numerous and obvious differences between organized and inert bodies in their composition, and in the history of the phenomena which they exhibit. The vital properties of the former present an equally strong contrast to the physical powers of the latter.

The vital properties, constantly variable in their intensity, often pass with the greatest rapidity from the lowest to the highest degree

of energy, are successively exalted and weakened in the different organs, and assume, under the influence of the slightest causes, a thousand different modifications. Compare the muscular energy of the same individual, when fainting, with that which he can display in a fit of rage, or in a paroxysm of mania. The physical powers, on the contrary, constantly the same at all times, give rise to a series of phenomena always uniform. Contrast sensibility and attraction; the latter is always in proportion to the mass of the body in which it is observed, while the former is constantly changing in the same organ, in the same mass of matter.

The invariable nature of the laws, which preside over physical phenomena, enables us to submit to calculation all the facts in those sciences; but the application of the mathematics to vital action can only lead to very general formulæ, both because the different data are uncertain quantities, and because we cannot be sure that we have taken them all into consideration. The resistance experienced by a fluid in passing through a dead tube, the velocity of a projectile, the rate at which a body falls through the air, may be easily reduced to a fixed law; but to calculate the power of a muscle, the velocity of the blood, or the action of the stomach, is, to use the comparison of Bichat, like building on a moving sand an edifice which is solid in itself, but which quickly falls from the insecurity of its foundation.

From the circumstances just explained, the vital and physical phenomena derive, respectively, the characters of irregularity and uniformity. Inert fluids are known, when they have once been accurately analysed; but one or even many examinations do not inform us of the nature of the living fluids. Chemical analysis gives us a kind of anatomy of them; but their physiology consists in a knowledge of the innumerable varieties they exhibit according to the condition of their respective organs, or of the system in general; and to the mutual influences, which, connecting the organs to each other, produce most important modifications of their functions. The urine differs as it is voided after a meal or after sleep; that is, according to the state of the digestive organs, and of the blood; in winter and in summer, or in proportion to the greater or less activity of the cutaneous capillaries, the mere passage from a warm to a cold temperature alters its composition. It is not the same in the child, the adult, and the old man; in the male and in the female; in a quiet state of the mind, and in the agitation of the passions. Add to these differences the innumerable alterations produced by disease, and you will be immediately sensible that the mere analysis of common urine constitutes a very inconsiderable share of the physiological history of that fluid.

The science of organized bodies should therefore be treated in a manner entirely different from those which have inorganic matter for their object. We should employ a different language, since words transposed from the physical sciences to the animal and vegetable economy, constantly recall to us ideas of an order altogether different from those which are suggested by the phenomena last mentioned. Although organised bodies are subjected in many respects to physical

laws, their own peculiar phenomena present no analogy to those which are treated in chemistry, mechanics, and other physical sciences; the reference therefore to gravity, to attraction, to chemical affinity, to electricity or galvanism, can only serve to perpetuate false notions in physiology, and to draw us away from the proper point of view, in which the nature of living phenomena and the properties of living beings ought to be contemplated. We might just as rationally introduce the language of physiology into physical science; explain the facts of chemistry by irritability, or employ sensibility and sympathy to account for the phenomena of electricity and magnetism, or for the motions of the planetary system.

The application of physical science to physiology was begun when the latter was in its infancy; when organization had been little studied, and its phenomena less observed. The successful employment of the just method of philosophizing, exhibited in the stupendous discoveries of Newton, did not advance the science of life. On the contrary, dazzled by the brilliancy of his progress, physiologists were even led by it into error of seeking every where in the animal economy for attraction and impulse and of subjecting all the functions to mathematical calculations. To Haller principally we must ascribe the merit of placing physiology on its proper basis, as a peculiar and independent science by his unwearied industry in dissection, and more particularly by his numerous researches, in living animals, on all the parts of their vital economy.

The same means were pursued by Mr Hunter to a much greater extent and with superior success. He did not attempt to explain life by a barren *a priori* speculations, or by the illusory analogies of other sciences; but he sought to discover its nature in the only way which can possibly lead to any useful and satisfactory result; that is by a patient examination of the fabric, and a close observation of the actions of living creatures. He surveyed the whole system of organized beings, from plants to man; he developed their structure by numberless dissections, of which the evidences are contained in the adjoining Collection; and he discovered their functions by patient observation and well contrived experiments, of which you have the results recorded in his works. He thus not only strengthened and secured the foundations laid by Haller, but supplied many deficiencies, rectified several inconsistencies, and gave to the whole structure an unity of character and solidity that will ensure its duration.

Such is the path, difficult and tedious, but the only one, by which we can arrive at a knowledge of vitality; to frame an hypothesis, or even many, is a much shorter and easier business. To represent that Mr Hunter is the first or only inquirer, who saw the subject in a right point of view, and prosecuted it on the right principles, who contemplated physiology as a distinct science, that must be cultivated by itself, embracing a peculiar order of phenomena, not to be elucidated by electricity, attraction, or what not, would be an act of injustice to many enlightened inquirers. But his labours, more than those of any one man, embraced so wide a field of inquiry into the composition and vital phenomena of animals, that we might deduce from them a

rational explanation of many of the actions of living beings, and thus lay the foundation for a general theory of life, that would not disgrace the name of Hunter.

In the science of physiology we proceed on the observation of facts, of their order and connection; we notice the analogies between them; and deduce the general laws to which they are subject. We are thus led to admit the vital properties, already spoken of, as causes of the various phenomena; in the same way as attraction is recognised for the cause of various physical events. We do not profess to explain how the living forces in once case, or attraction in the other, exert their agency. But some are not content to stop at this point; they wish to draw aside the veil from nature, to display the very essence of the vital properties, and penetrate to their first causes; to shew independently of the phenomena, what is life, and how irritability and sensibility execute those purposes, which so justly excite our admiration. They endeavour to give a physical explanation of the contraction of a muscle, and to teach us how a nerve feels. They suppose the structure of the body to contain an invisible matter or principle, by which it is put in motion. Such is the ἐνορμουν or impetum faciens of Hippocrates, the Archeus of Van Helmont, the Anima of Stahl, Materia Vitæ of Hunter, the calidum innatum, the vital principle, the subtle and mobile matter of others;—there are many names for it, as each successive speculator seems to have fancied that he should establish his own claim to the offspring by baptizing it anew. Either of the names, and either of the explanations may be taken as a sample: they are all equally valuable, and equally illustrative.

Most of them, indeed, have long lain in cold obstruction amongst the rubbish of past ages; and the more modern ones are hastening after their predecessors to the vault of all the Capulets.

The object of explanation is to make a thing more intelligible. Explaining a phenomenon consists in shewing that the facts, which it presents, follow each other in an order analogous to that which is observed in the succession of other more familiar facts. In shewing that the motions of the heavenly bodies follow the same law as the descent of a heavy substance to the earth does, Newton explained the fact. The opinion under review is not an explanation of that kind; unless indeed you find what I am not sensible of, that you understand muscular contraction better by being told that an Archeus, or a subtle and mobile matter sets the fibres at work.

This pretended explanation, in short, is a reference, not to any thing that we understand better, than the object to be explained; but to something that we do not understand at all—to something which cannot be received as a deduction of science, but must be accepted as an object of faith.

If animals want such an aid for executing their functions, how is it that vegetables proceed without the same assistance? They perform vital motions, and exhibit some of the most important functions: do they accomplish them without an Archeus or a vital principle? Have they no subtle fluid of life?

If the properties of living matter are to be explained in this way, why should not we adopt the same plan with physical properties, and account for gravitation or chemical affinity by the supposition of appropriate subtle fluids? Why does the irritability of a muscle need such an explanation, if it can be called more than the elective attraction of a salt?

To make the matter more intelligible, this vital principle is compared to magnetism, to electricity and to galvanism; or is it roundly stated to be oxygen. 'Tis like a camel, or like a whale, or like what you please. You have only to grant that the phenomena of the sciences just alluded to depend on extremely fine and invisible fluids, superadded to the matters in which they are exhibited; and to allow further that life and magnetic, galvanic, and electric phenomena, correspond perfectly: the existence of a subtle matter of life will then be a very probable inference. On this illustration you will naturally remark, that the existence of the magnetic, electric, and galvanic fluids, which is offered as a proof of the existence of a vital fluid, is as much a matter of doubt, as that of the vital fluid itself. It is singular, also, that the vital principle should be like both magnetism and electricity, when these two are not like each other.

It would have been interesting to have had this illustration prosecuted a little further. We should have been pleased to learn whether the human body is more like a loadstone, a voltaic pile or an electric machine: whether the organs are to be regarded as Leyden jars, magnetic needles, or batteries.

The truth is, there is no resemblance, no analogy, between electricity and life; the two orders of phenomena are completely distinct; they are incommensurable. Electricity illustrates life no more than life illustrates electricity. We might just as well say that an electrical machine operates by means of a vital fluid, as that the nerves and muscles of an animal perform sensation and contraction by virtue of an electric fluid. By selecting one or two minor points, to the neglect of all the important features, a distant similarity may be made out; and this is only in appearance. In the same way life might be shewn to be like any thing else whatever, or any thing else to be like life.

Identity or similarity of cause can only be inferred from identity or resemblance of effect. Which electric operation is like sensation, digestion, absorption, nutrition, generation? Which vital phenomenon resembles the attraction of bodies dissimilarly electrified, or the repulsion of those in similar states of electricity? What function resembles the ignition of metals, and the firing of gases; the decomposition of water, and the subversion of the strongest chemical affinities?

Another assertion, which has been employed to prove the existence of an independent living principle, superadded to the structure of animal bodies, is, that the various beings composing the animal kingdom, and differing from each other so remarkably as they do, nevertheless exhibit the same functions. This argument, which has been adduced on other occasions, and for other purposes, is completely ungrounded. The fact is just the reverse. Comparative Anatomy

affords the strongest and most numerous proofs of the dependance of function on structure. Every variation in the construction of an organ is accompanied with a corresponding modification of function; and whenever an organ ceases to exist altogether, its office also ceases. The stomach indeed is very different in a man, a cow, a fish, a worm, and each of these different stomachs digests—but it digests after its own manner. If any organ can execute any function, why may not the urinary bladder digest, or the lungs form urine; why should not one organ execute all purposes? Were it indeed otherwise, all the interest and all the utility of the science would be at an end. All our praises of the wise adaptation of structure to situation and habits, of the modifications of organs according to their uses, presupposes the truth I have just asserted. If this were not so, what end would it answer to classify animals according to their structure? How would this lead to a natural arrangement, in which the place occupied by the animal indicates its construction, economy, and way of life? However, to cut the matter short by an example or two, is the vital economy of an insect the same as that of a fish? Or does that of either resemble the physiology of a quadruped? Do the very different teeth, jaws, muscles, stomach, and intestines of a cow and a lion perform the same offices? The visible fabric of the brain differs most widely in quadrupeds, birds, fishes, insects; is there not an equal difference in their intellectual phenomena, appetites, and instincts?

It seems to me that this hypothesis or fiction of a subtle invisible matter, animating the visible textures of animal bodies and directing their motions, is only an example of that propensity in the human mind, which has led men at all times to account for those phenomena, of which the causes are not obvious, by the mysterious aid of higher and imaginary beings. Thus in the earlier ages of the world, and in less advanced stages of civilization, all the appearances of nature, which the progress of science enables us to explain by means of natural causes, have been referred to the immediate operation of the divinity.

The storm was the work of Jupiter, who is sculptured with the thunderbolt in one hand, and grasping the lightning with the other; Eolus produced the winds; Neptune agitated the ocean; Vulcan and Pluto shook the globe with volcanoes and earthquakes. So far was this belief in invisible agencies carried, that each grove and each tree, each fountain and each river, was regarded as the abode of its peculiar deity;—the fawns, the dryads, the nymphs of the elegant Greek mythology; the sprites, the elves, the fairies of more modern credulity. Poetry, which speaks the language of the people, and appeals to their common feelings, is full of illustrations of this observation. Personification is its most common figure; and, so strong is our disposition to clothe all surrounding objects with our own sentiments and passions, to animate the dead matter around us with human intellect and expression, that the boldest examples of this figure do not shock us. In his sublime description of a tempest, Virgil not only makes the monarch of Olympus "ride in the whirlwind and direct the storm," but brings him before our eyes in the very act of hurling the lightning, and casting down mountains with the bolt.

Ipse pater, media nimborum in nocte, corusca
Fulmina molitur dextra : quo maxuma motu
Terra tremit; fugere feræ, et mortalia corda
Per gentes humilis stravit pavor : ille flagranti
Aut Atho, aut Rhodopen, aut alta Cerania telo
Dejicit.

Thus we find at last that the philosopher with his archeus, his anima, or his subtle and mobile vital fluid is about on a level, in respect to the mental process, by which he has arrived at it with the

"Poor Indian, whose untutor'd mind,
Sees God in clouds, and hears him in the wind."

It may appear unnecessary to disturb those who are inclined to indulge themselves in these harmless reveries. The belief in them, as in sorcery and witchcraft, is not ungrounded in reasoning, and therefore has nothing to fear from argument. I only oppose such hypotheses when they are adduced with the array of philosophical deduction, because they involve suppositions without any ground in observation or experience, the only source of our information on these subjects. I repeat to you that the science of physiology, in its proper acceptation, is made up of the facts which we learn by observation and experiment on living beings, or on those which have lived; of the comparison of these with each other; of the analogies which such comparison may discover, and the general laws to which it may lead. So long as we proceed in this path, every step is secure; when we endeavour to advance beyond its termination, we wander without any guide or direction, and are liable to be bewildered at every moment. To say that we can never arrive at the first cause of the vital phenomena, would be presumptuous; but it is most true that all the efforts to penetrate its nature have been equally unsuccessful, from the commencement of the world to the present time. Their complete failure in every instance has now led almost universally to their abandonment, and may induce us to aquiesce on this point in the observations of Lucretius on a parallel subject :

Ignoratur enim quæ sit natura animai;
Nata sit, an contra, nascentibus insinuetur,
Et simul intereat nobiscum morte dirempta,
An tenebras orci visat, vastasque lacunas.

THE END

Printed and Published by R. Carlile, 5, Water Lane, Fleet Street, and 201 Strand.

Lawrence as a Lecturer

Sir James Paget in his "Memoirs and Letters" pays the following tribute to Sir William Lawrence:—

"Of the Lectures then given it is as hard to speak in general words as it might be of those at any present school. They were so various in quality: some so good, some not so good. Those of Lawrence were, I think, the best then given in London: admirable in their well-collected knowledge, and even more admirable in their order, their perfect clearness of language, and the quietly attractive manner in which they were delivered. As I remember them now, I feel that I did not esteem them half enough at the time. It was a great pleasure to hear them, and a good lesson. They were given on three days in the week at 7 in the evening after dinner. He used to come to the Hospital in the omnibus and, after a few minutes in the museum, would, as the clock struck, enter the theatre, then always full. He came with a strange, vague outlook as if with uncertain eyesight; the expression of his eyes was always inferior to that of his other features. These were impressive, beautiful and grand—significant of vast mental power well trained and well sustained. He came in quietly, and after sitting for about half a minute, as if gathering his thoughts, began, in a clear, rather high note, speaking quite deliberately in faultless words as if telling judiciously that which he was now thinking. There was no hurry, no delay, no repetition, no revision; every word had been learned by heart, and yet there was not the least sign one word was being remembered. It was the best method of scientific speaking that I have heard; and there was no one, at that time, in England, if I may not say in Europe, who had more completely studied the whole principles and practice of Surgery."

Taylorisms

The following are a few selections from the Astronomico-Theological Discourses delivered by "The Devil's Chaplain" at the Rotunda and published in *The Devil's Pulpit* :—

The bite of a mad dog, we all know, is a very frightful thing, but God knows that the bite of a mad parson is the worst bite of the two : in the one case you die of hydrophobia, or dread of water ; in the other you die of pyrophobia, or the dread of fire.

Jesus Christus is good Latin, but Jesus Christ is neither good Latin, nor good English, nor good sense.

Right's right ! we used to say in the corrupted currents of this world, but when we come to gospel morality, we find that right's wrong, and it's ten to one if we don't find ourselves in Hell at last, by means of the very virtues with which we had hoped to pay the turnpike into Heaven.

When once a Christian begins to reason, he's like a beggar on horseback—you may guess where he'll ride to. He'll put his precious soul into pawn, and what's worse than all, he'll never pay the parsons another ha'penny to get it out again.

Where all is conundrum, quirk, quiddity, and riddle-me-re, beyond the faculty of human wit to unriddle—where, but to come within a guess of what they're driving, at you must evitate the sonorous catachresis of metonymous periphrases, no less than the cabalistical dogmatism of anagogical ratiocination ; or otherwise you must immolate the apothegmatical aufractuosity of idiopathic sentiment to the supervacaneous ponderosity of cacophenous periods, polyphonous rhetoricisms, and syncategorimatical collocation, and conturbantur Constantinopolitani, innumerabilibus solicitudenibus.

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Richard Carlile's Funeral

FUNERAL OF THE LATE RICHARD CARLILE.—The remains of this notorious individual were deposited at the Kensal-green Cemetery yesterday. At 2 o'clock in the afternoon a vast number of persons were assembled in Bouverie-street, Fleet-street, to witness the departure of the funeral cortege. At 3 o'clock a hearse and five mourning coaches drove up to the house where the deceased was lying. The funeral procession moved on, and during its progress attracted considerable attention. On arriving at the grave a considerable delay occurred from the clergyman having had to read the burial service over several bodies before the arrival of the deceased. When the officiating divine, the Rev. Josiah Twigger, arrived at the grave, accompanied by the clerk, one of the deceased's sons addressed the clergyman as follows:—"Sir, we want no service over the body of our late father; he passed his life in opposition to all priestcraft, and we protest against the service being read." The reverend divine replied—"Sir, I must do my duty." Another son of the deceased here stepped forward and said—"We have purchased this ground as the resting place of our deceased parent, and I object, with my brothers, to the reading of the funeral service." (Here loud cries of "Hear, hear," were given by the mob assembled round the grave.) The clergyman continued—"I must and will do my duty, and at your peril abide the consequences that may occur from any opposition to the usual observance on such occasions." Another son—"Then, sir, we will not hear it." Here the mob cried out, "Yes, yes! leave the grave; let all the friends of Mr Carlile go away." At this moment the party assembled quitted the grave, the mourners retired into the coaches, and the clergyman proceeded in the most impressive manner to read the service, during which he was frequently interrupted by ribald jests from a few stragglers who had kept at a short distance from the spot. It is due to the sons of the deceased to state that they gave their opposition in the most respectful tone possible, but their example was not imitated by many of the followers of the deceased. After the clergyman had retired, a rush was made to the grave, and a son of the deceased addressed the crowd as follows:—"I beg to state that I, with my family and friends, were opposed to the performance of this service; we did not require it; and have given every opposition in our power to its being done. I thank you all, in the name of my late father, for your attendance here on this occasion." Having said thus much, he and the followers of the funeral departed.

The above account of Richard Carlile's funeral is reproduced from *The Times*, London, for Thursday, February 28, 1843.

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